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ABSTRACT

This research monograph reports findings based on studies conducted by Maine's Regional Medical Program Research and Evaluation Service from interviews of 90 families in Indian communities. The report covers self-evaluation of health, patterns and sources of medical care, attitudes toward health care, perception of services, and survey results. The data shows that over three-fourths of the families have various health and medical problems which need immediate attention. These problems range from chronic medical conditions and dental care needs to inadequate physical and sanitary conditions. Medical problems are seen as being closely related to poverty, lack of services and previous illness. The multitude of health and health-related problems faced by American Indian families are further accentuated by the present health care system. Ill health of the poor is accentuated by high medical costs, inequitable distribution of health personnel and facilities and a loosely integrated system of health care delivery. A high percentage of the families are receptive to proposed services and facilities. (Author/WS)

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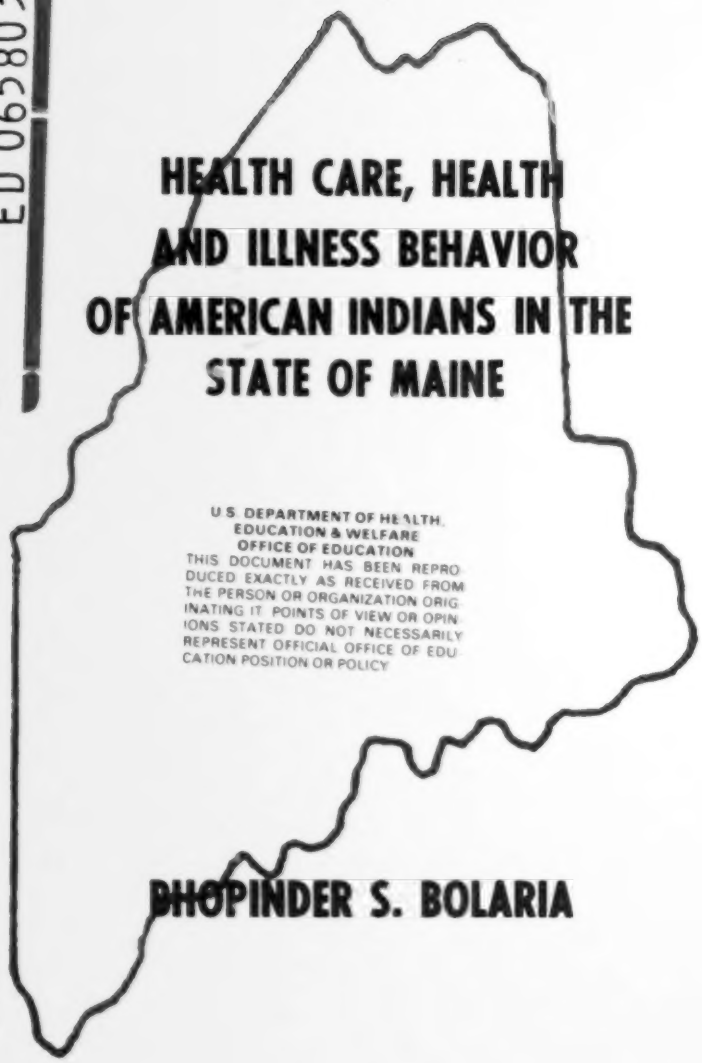
HEALTH CARE, HEALTH AND ILLNESS BEHAVIOR OF AMERICAN INDIANS IN THE STATE OF MAINE



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MAINE'S REGIONAL MEDICAL PROGRAM
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HEALTH CARE, HEALTH AND ILLNESS BEHAVIOR OF AMERICAN INDIANS IN THE STATE OF MAINE

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PREFACE

This study was conducted by Maine's Regional Medical Program Research and Evaluation Service (Bhopinder S. Bolaria, Ph. D., Director) during the summer of 1969, in cooperation with the Diocese of Portland, Division of Indian Services. Interviews were conducted with 90 families in two Indian communities--Pleasant Point and Peter Dana Point.

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TABLE OF CONTENTS

		PAGE
	PREFACE	ii
	LIST OF TABLES	v
	LIST OF SUPPLEMENTARY TABLES (APPENDIX A)	ix
	LIST OF SUPPLEMENTARY TABLES (APPENDIX B)	xi
CHAPTER		
I.	INTRODUCTION	1
	Studies in Rural Health Care in Maine: A Brief Summary	4
	Present Study	5
	The Questionnaire	8
	Methodological Note	9
	Socio-economic Characteristics of the Sample	10
	Self-Evaluation of Health	12
	Patterns and Sources of Medical Care	13
	Attitudes Toward Health Care	17
	Perception of Services	21
	Summary	24
II.	HEALTH AND ILLNESS BEHAVIOR	31
	Theoretical Considerations	31
	Review of Relevant Literature	40
	Summary	55
III.	HEALTH, ILLNESS EPISODES AND HEALTH CARE: ADULTS	69
	Family Health and Medical Problems	70
	Physical Disabilities, Paralysis and Limitation of Activity and Mobility	71
	Physician and Hospital Services: Accessibility and Availability	78

TABLE OF CONTENTS (CONTINUED)

PAGE

Routine-Preventive Care. 82

Solutions to Specific Illness Symptoms and Conditions 87

Use of Home Remedies and Patent Medicines. . . . 91

Dental Care and Services. 93

Anticipated Use, Preference and Acceptibility of Services. 98

Health Practices. 105

Summary. 106

IV. CHILDREN'S HEALTH CARE. 115

Physician's Care: Accessibility. 115

Routine-Preventive Health Care. 117

Reactions to Selected Illness Symptoms of Children 125

Children's Dental Care 126

Summary 131

V. SUMMARY AND CONCLUSIONS. 137

APPENDIX

A. SUPPLEMENTARY TABLES 145

B. DISTRIBUTION OF SELECTED MEDICAL RESOURCES IN MAINE. 161

C. QUESTIONNAIRE. 169

REFERENCES 191

LIST OF TABLES

TABLE		PAGE
1.	Respondents' Self-Evaluation of Health, and Rating of Health of Spouse, Children and Other Adults (in Per Cent)	15
2.	Regular Source of Medical Care by Adults and Children.	15
3.	Sources of Regular Care by Type of Sources: Adults and Children	15
4.	First Action Taken When Medical Attention is Needed by Families	18
5.	Factors Inititing Contact With a Physician by Families	18
6.	General Utilization Patterns of Physician Services by Families	18
7.	Respondents' Attitudes Toward Routine Visit to a Physician	20
8.	Respondents' Attitudes Toward Routine Visits to a Dentist	20
9.	Respondents' Attitudes Toward Regular Health Check-ups	20
10.	Respondents' Attitudes Toward Routine Visit to a Dentist by Children	22
11.	Respondents' Perception of the Availability and Adequacy of Medical Services.	22
12,	Respondents' Perception of the Availability of Medical Services for Stroke, Cancer, Heart Disease and Heart Attack	23
13.	Distribution of Specific Family Health or Medical Problems Requiring Immediate Help	71A
14.	Limitation of Mobility Due to Various Conditions and Symptoms by Husband and Wife	72
15.	Distribution of Specific Activity-Limiting Symptoms and Conditions by Husband and Wife	72
16.	Specific Cardiovascular-Renal and Related Illnesses by Husband and Wife.	72
17.	Current Physical Disabilities by Husband and Wife.	74

LIST OF TABLES (CONTINUED)

TABLE		PAGE
18.	Responses to Specific Questions Concerning Disability	74
19.	Partial or Complete Paralysis of one Side of the Body by Husband and Wife	76
20.	Symptoms and Conditions Related to Paralysis	77
21.	Incidence of Stroke, Cancer, Heart Disease and Heart Attack by Husband and Wife	77
22.	Sample Population With a Family Doctor	78
23.	General Accessibility to a Physician	79
24.	Distribution of Reasons for Lack of Accessibility to a Physician	79
25.	Unmet Medical Needs: Physician's Services and Hospitalization by Respondent and Spouse	81
26.	Length of Time Since Most Recent Physical Examination by Husband and Wife	81
27.	Distribution of Reasons for Most Recent Physical-Examination by Husband and Wife	84
28.	Length of Time Since Most Recent X-ray by Husband and Wife	84
29.	Length of Time Since Most Recent Electrocardiogram by Husband and Wife	84
30.	Length of Time Since Most Recent Cancer "Pap" Test by Wife	85
31.	General Pattern of Regular Preventive Check-ups by Husband and Wife	85
32.	Expected Solutions to Selected Illness Symptoms and Conditions (in Per Cent)	89
33.	Expected Solutions to Selected Illness Symptoms and Conditions (in Per Cent)	90
34.	Use of Home Remedies and Patent Medicine	92
35.	Specific Dental Problems by Husband and Wife	92
36.	Length of Time Since Most Recent Visit to a Dentist by Husband and Wife	95

LIST OF TABLES (CONTINUED)

TABLE		PAGE
37.	Distribution of Reasons for Most Recent Visit to a Dentist by Husband and Wife	95
38.	Respondents' Visits to a Dentist When Required	95
39.	Distribution of Reasons for Not Seeing a Dentist	96
40	General Pattern of Visit to a Dentist by Husband and Wife	96
41.	Respondents' Attitudes toward Additional Health Services and Facilities	99
42.	Potential Use of Selected Health-Information Booklets	99
43.	Types of Medical Services Preferred by Respondents for Their Families	101
44.	Types of Medical Services Preferred by Respondents for Their Children	101
45.	Respondents Attitudes Toward Additional Health Services for Children by Families Who Had Children 18 years of Age and Younger	103
46.	Distribution of Wives Who Practice Self-Breast Examination for Cancer	103
47.	Dental Health-Care Practices by Families	104
48.	Children's Dental Health-Care Practices by Families	104
49.	Children's Use of Vitamin or Mineral Supplements by Families	104
50.	Types of Vitamin or Mineral Supplements Used by Children by Families	104
51.	Children's General Accessibility to a Physician by Families	116
52.	Distribution of Reasons for Lack of Accessibility to a Physician	116
53.	Financial Consideration in Children's Health-Care by Families	118
54.	General Pattern of Preventive Regular Checkups for Children by Families	118

LIST OF TABLES (CONTINUED)

TABLE		PAGE
55.	Distribution of Reasons for Children Not Receiving Regular Checkups	119
56.	Visits to Medical Personnel by Children of All Ages During a Twelve Month Period (1968)	119
57.	Proportion of Children 18 years of Age and Younger Who Had Various Immunizations.	122
58.	Length of Time Since Most Recent X-ray, Hearing Test, Vision Test and Physical Examination Children 18 Years of Age or Younger.	123
59.	Expected Solutions to Selected Illness Symptoms of Children by Families (in Per Cent)	124
60.	Expected Solutions to Selected Illness Symptoms of Children by Families (in Per Cent)	127
61.	Specific Children's Dental Problems Reported by Families Whose Children had Dental Problems.	128
62.	Length of Time Since Most Recent Visit to the Dentist by Children 18 Years of Age or Younger	128
63.	Distribution of Reasons for Most Recent Visit to a Dentist by Children	128
64.	General Pattern of Children's Visits to the Dentist by Families	129

APPENDIX A: SUPPLEMENTARY TABLES (A-1 TO A-28)

TABLE		PAGE
A-1.	Martial Status of Respondents	146
A-2.	Age Distribution of Respondents and Spouse	146
A-3.	Age Distribution of Children of All Ages	147
A-4.	Employment Status of Respondents and Spouse	147
A-5.	Occupational Status of Employed Respondents and Spouse	148
A-6.	Educational Level of Respondents and Spouse	148
A-7.	Annual Family Income	149
A-8.	Sources of Medical Care Expenses	149
A-9.	Distribution of Families with Current Health or Medical Problems	150
A-10.	Respondents' Attitudes Toward Talking to a Nurse About Current Family Health or Medical Problems	150
A-11.	Cardiovascular-Renal and Related Illnesses by Husband and Wive	150
A-12.	Distance From Family Doctor	151
A-13.	Distance From Nearest Doctor	151
A-14.	Visits to Specific Medical Personnel During a Twelve Month Period (1968) by Wife	152
A-15.	Visits to Specific Medical Personnel During a Twelve Month Period (1968) by Husband	153
A-16.	Reason for Husband's Hospitalization During a Twelve Month Period (1968)	153
A-17.	Reason for Wife's Hospitalization During a Twelve month Period	154
A-18.	Distance to a Hospital	154
A-19.	Length of Time Since Most Recent Visit to a Physician for any Reason by Husband and Wife	155

APPENDIX A: SUPPLEMENTARY TABLES (A-1 TO A-28) CONTINUED

TABLE		PAGE
A-20.	Possession of Home Remedies and Patent Medicine	155
A-21.	Number of Visits to the Dentist in 1968 by Husband and Wife	156
A-22	Distance From a Dentist	156
A-23.	Reasons for Hospitalization of Children of all ages During a Twelve Month Period (1968)	157
A-24.	Number of Children's Visits to the Dentist During a Twelve Month Period (1968)	157
A-25.	Smoking Status of Husband and Wife	158
A-26.	Exposure to Irritating Chemical or Air Pollutants by Husband and Wife	158
A-27.	Chronic Cough by Husband and Wife	158
A-28.	Source of Drinking Water	159

APPENDIX B: SUPPLEMENTARY TABLES (B-1 to B-

TABLE		PAGE
1	Distribution of Active Physicians (M.D.'s) in the State of Maine	162
2.	Distribution of Active Physicians (D.O.'s) in the State of Maine	163
3	Distribution of Physicians (M.D.'s, D.O.'s) in the State of Maine	164
4.	Distribution of Physicians (M.D.'s, D.O.'S) in the State of Maine	165
5.	Hospital Distribution in the State of Maine	166
6.	Nursing Home Distribution in the State of Maine	167

CHAPTER I

INTRODUCTION

Modern development in science and technology has brought about changes within the medical profession and in the patterns of medical service.[1] The structure of medical service, the character of medical practice, the physician's role, and the doctor-patient relationships have been changing rapidly. The ways in which physicians serve their patients--the manner and setting--have greatly changed. Medical practice has shifted from home to the office, clinics and hospitals, where the doctor has access to elaborate equipment, specialized services, and other facilities. In order to deliver "total medical care" the physician needs the cooperation of his more specialized colleagues and many other paramedical and technical personnel. The physician's relation with his colleagues, access to laboratory, and above all, access to hospitals play a very important role in his practice. The idea of the isolated practitioner is a reality of the past.[2] The individual doctors are less able to deliver "total medical care" and are less able to bring to their patients all the specialized knowledge of modern medicine.

Consequently, the delivery of modern health care requires team effort. Yet in the face of all this the medical services in the United States are loosely organized. The National Advisory Commission on Health Manpower concluded:

> Medical care in the United States is more a collection of bits and pieces (with overlapping, duplication, great gaps, high costs, and wasted effort), than an integrated system in which needs and efforts are closely related.[3]

The Commission further stated:

> There is a crisis in American health care. The intuition of the average citizen has foundation in fact. He senses the contradiction of increasing employment of health manpower and the decreasing personal attention to patients. The crisis, however, is not simply of numbers. It is true that a substantially increased number of health manpower will be needed over time. But if additional personnel are employed in the present manner and within the present patterns and systems of care, they will not avert, or even perhaps alleviate the crisis. Unless we improve the system through which health care is provided, care will continue to become less satisfactory, even though there are massive increases in cost and in number of health personnel.[4] (italics in original)

The increasing cost of health care has left many Americans unable to cope with their health and illness problems. While the Consumer Price Index has risen steadily since World War II, medical price increases have far exceeded the other items in the index. In the last two decades the cost of medical services has risen 129 per cent.[5] Consequently the private consumer expenditures for health and medical care have also increased.[6]

This increase in cost of medical care has affected the poor more severely than any other segment of the population. Almost twice as many people are poor in the rural areas of this country as in the urban areas.[7] But the plight of the rural poor is further complicated by the fact that health facilities, costly as they may be, are largely inaccessible to them.[8] The general tendency has been that the "physicians are distributed not according to medical needs but according to the economic opportunity to earn a large income."[9] Most of the rural areas are under-doctored.[10]

The combination of high cost for medical care, inequitable distribution of health personnel and resources, a loosely integrated system of health care, has perpetuated ill health particularly among

the poor and especially the rural poor. A few selected statistics may be cited to illustrate the health gap between the poor and non-poor or white and non-white.

1. If non-white status is used as a proxy for the poor, the clear health differential, by race, in this country can be interpreted as reflecting the unfavorable health status of the poor. While life expectancy for the newborn has increased significantly since the turn of the century for both white and non-white groups, a wide differential still exists (63.6 years of non-white versus 70.9 years for the white population)

2. Maternal morality rates among non-white mothers are approximately four times those among white mothers (in 1965 90.2 and 22.4 maternal deaths per 100,000 live births, respectively). In infant mortality, a similar trend exists (21.5 deaths per 1,000 live births among white infants compared to 40.3 among non-white infants).

3. High differentials in non-white versus white mortality are found for tuberculosis, influenza and pneumonia, vascular lesions affecting the central nervous system, and death due to homicide. For each of these, the ratios are greater than 2 to 1. There is also a higher non-white mortality from cancer of the cervix, a neoplasm almost entirely curable with early diagnosis and treatment.

4. 22.5 per cent of non-white children age one to four have no DPT immunization compared to 8.6 per cent of white children.[11]

The same publication of the U. S. Department of Health, Education and Welfare considers the following reasons for the poor health status of the poor.

1. The current 'system' in which the poor receive health services perpetuates fragmented emergency-oriented medical care which is often relatively inaccessible in terms of time and location.

2. Despite recent legislation, inability to pay for services remains an important barrier to the poor's quest for health care.

3. Medical facilities and health manpower are particularly scarce in areas with a high concentration of poor.

4. Environmental and nutritional deficiencies--lead to lowered host resistance and greater exposure to health hazards.[12]

The personal health care needs, health and illness behavior of the low-income, non-white American Indians is the main concern of this research monograph. However, to define more clearly the health needs and health care of the people in the State of Maine, the following studies were conducted. It is hoped that the findings of these studies will be useful to Maine's Regional Medical Program for Program Planning.

Studies in Rural Health Care in Maine: A Brief Summary

This research monograph is based on one of the studies conducted by Maine's Regional Medical Program Research and Evaluation Service. The primary purpose of these studies was to examine the health status, health-care needs, attitudes, utilization patterns, health and illness behavior, and medical services available to the residents of rural communities. These studies are:

(A) "Gouldsboro Health Study"[13]

This study was conducted in fifteen communities located in Hancock and Washington Counties. The four communities in Hancock County are Sullivan, Sorrento, Gouldsboro, and Winter Harbor. The remaining eleven communities located in Washington County are Addison, Beals, Cherryfield, Columbia, Columbia Falls, DeBlois, Harrington, Jonesport, Jonesboro, Milbridge, and Steuben. Interviews were conducted with a one-third systematic random sample of the families in these communities. In all, main questionaires were administered to 1,044 families and there were 178 hospital supplements, 342 major illness supplements, 93 pediatric supplements, and 45 pregnancy supplements.

(B) "American Indian Study"[14]

This study was conducted in cooperation with the Diocese of Portland, Division of Indian Affairs. The data were collected from 90 families from two Indian Reservations in Washington County by four interviewers.

(C) "Jackman Study"[15]

The data for this study were collected from 316 families. This is a "total" community health study.

(D) "Health Study Low-Income Families"[16]

This study was conducted in cooperation with Merrymeeting Community Action Inc., Bath Maine. Interviews were conducted with 301 families.

Present Study

As noted above, these findings are based on one of the studies conducted by Maine's Regional Medical Program Research and Evaluation Service. This study was conducted in cooperation with the Diocese of Portland, Division of Indian Services. Interviews were conducted with 90 families in two Indian Communities--Pleasant Point and Peter Dana Point--Washington County, Maine. According to the Tribal Census, there were 123 families on these two reservations. Eight of the families could not be contacted because they were away from the communities at the time of the study. One hundred and fifteen families were contacted and 90 responded affirmatively to our request for an interview. This figure represents 78.3 per cent of the families contacted and 73.2

per cent of the total families in these two communities.

The data were collected by four interviewers from Regis College, Weston, Massachusetts. Each interviewer was helped by one Community Action Program (CAP) aide. These aides served as contacts between the interviewers and the respondents and as interpreters when the interviews were conducted in the Indian language.

Though the sample represents a large proportion of the Indian families, it may not be entirely representative. However, certain characteristics of the Indians in Maine may be pointed out, and may be compared to other available data on American Indians in the U. S.

American Indians, both in Maine and in the rest of the rural United States, have lower socio-economic status than the general U. S. population. Approximately 34 per cent of persons 25 years of age and older on the Penobscot Reservation attended high school. On the Passamaquoddy Reservation, 17.1 per cent attended high school and 2.4 per cent college.[17] These figures are somewhat similar to the data for rural Indians in the U. S. Approximately one-third of all rural Indians go to high school, and three per cent to college. In the general rural population, the figures are 45 per cent for high school attendance and 10 per cent for college.[18] Regarding income, 46 per cent of the Penobscot Indians and 56.1 per cent of the Passamaquoddy Indians reported family income less than $3,000 in 1959.[19] Sixty per cent of all rural Indian families had income of less than $3,000 in 1959. This figure is nearly twice the proportion of the total rural population.[20]

The median age of the Maine Indian population was 15.9

years for males and 19.9 years for females.[21] The median age of all rural Indians in the U. S. in 1960 was 17.7 years, both for males and females, and 27.3 years for the total rural U. S. population.[22]

In addition to their low education and income level, the American Indians also have low health status. Their health status is far below that of the U. S. general population and is comparable with U. S. general population 20-25 years ago.[23] The American Indian population has a high birth rate (crude birth rate 37.4 per cent for Indians and 17.8 for the U. S.), high post neo-natal death rate, high infant mortality, and low life expectancy.[24] The morbidity from common infectious diseases is high among Indian population. According to a U. S. Public Health Service Publication.

> Morbidity is high from influenza, pneumonia, and upper respiratory infections, dysentery, and gastroenteritis, streptococal infections, whooping cough, mumps and their associated complications.[25]

The same publication shows that Otitis media (inflammation of ears) is the most prevalent infectious disease among this population.[26] Otitis media, like other infectious diseases, is strongly associated with impoverished living conditions.

> Crowded housing aids the rapid spread of upper respiratory tract infections. Inadequate sanitary facilities and substandard diets are apparent to some degree in the majority of American Indian Communities and increases the susceptibility of its inhabitants to this disease.[27]

The foregoing discussion indicates that the American Indian population lives in impoverished conditions and has a high incidence of illness and disease. To define more clearly the health needs and health care of the Indians in Maine the present study was conducted in two Indian communities--Pleasant Point and Peter Dana

Point in Washington County. We noted earlier that though the sample represents a large proportion of the Indian families in these two communities, it may not be entirely representative. One must also pay attention to the differential distribution of health resources and services, such as physicians and hospital services in the state. Distributions of selected medical resources in Maine are presented in Appendix B, Tables B-1 to B-6. The major point here is that the use of medical services may be a function of both the attitudinal and socio-economic characteristics of the families and the availability of and accessibility to such services. A general discussion of the distribution of selected medical resources in Washington County is presented later.

The Questionnaire

A wide range of data were collected (for questionnaire see Appendix C).

The general demographic information include: marital status, the length of time respondents have lived there, the number of persons in the family, their ages, sex and state of health, the employment status of husband and wife, educational level of husband and wife, and family income.

Data were also collected on the utilization patterns, and availability of and accessibility to medical services. Such data include: family doctor, illness behavior of the families, and any difficulty in seeing a physician. Data were also collected on routine-preventive care, such as physical examinations, visits to the doctor, health service utilization patterns, utilization of medical services during the year 1968, unmet medical needs,

perception of availability and adequacy of medical services, physical disabilities, dental care, other routine care, such as x-ray, pap test, electrocardiogram, and solutions to selected illness symptoms.

Information was collected on the use of home remedies a and patent medicines.

Also, detailed data were collected on children's (18 years of age and younger) health care. This includes children's health care patterns, immunization of children, dental care, x-ray, hearing tests, vision tests, physican examinations, expected solution to symptoms of children and potential use of health services.

Methodological Note

The use of household interviews by means of which questions of health information pertaining to all members of the household are addressed to one of its members is most commonly used in studies of this nature. Using a similar procedure, data were collected from 90 families. In this manner, though interviews were conducted with 90 respondents, a varying degree of information was collected on 499 individuals. The sample distribution is as follows:

Sample Distribution

All Adults	Wives	= 78	
	Husbands	= 59	
	Other Adults	= 21	Total = 158
All Children	Children 18 years of age and younger	= 264	
	Other Children	= 27	Total = 291

The discrepancy in the total number of families interviewed (90) and

the number of husbands and wives reported here is due to divorce, desertion, widowed, separation or single respondents.

As noted above, the respondent provided information not only for self, but also, for his/her spouse and other family members. In the presentation of the findings, the data are reported for husbands and wives. In the husband's column, the frequency and percentage figures are obtained by combining the report of the male respondent for himself and the female respondent for her husband. In the wife's column, the frequency and percentage figures are obtained by combining the report of the female respondent for herself and the male respondent for his wife. Our categories of husband and wife also include single males and females.

Socio-Economic Characteristics of the Sample

The data on various socio-economic characteristics of the sample are presented in Appendix A, Tables A-1 to A-7.

As might be expected, most of the families are stable residents of these communities. For instance, over 63 per cent of the respondents report that they have been living in the present community for more than 30 years.

Regarding marital status of the respondents (interviewees), approximately one-third are divorced, separated, deserted or widowed, 52.2 per cent married and 12.2 per cent single.

Though 90 families were interviewed, there were 78 wives and 59 husbands in these families. As noted above this is due to desertion, divorce, separation, widowed, or female-based or male-based households.

Concerning the age distribution of husband and wife, 12.1 per cent of the husbands and 26.9 per cent of the wives are under 30 years of age, and approximately 15 per cent of both husbands and wives are 60 years of age or older. Approximately one-third of the husbands and 27 per cent of the wives are 30-39 years of age and the remaining respondents and spouses are 40-59 years old.

According to other information collected during the interviews, there were 21 other adults living with these families, 9 males and 12 females, most of them in the older age groups.

There were also a total of 291 children of all ages, and of these 264 children were 18 years of age or younger. Regarding the sex distribution of children of all ages, 136 were males and 155 females. The data on age distribution of children of all ages are presented in Table A-3.

Approximately one-third of the husbands and almost 75 per cent of the wives were not employed. Of those who were employed most were in low status occupations (Tables A-4 and A-5).

Approximately 38 per cent of the husbands and 65.8 per cent of the wives had 1-8 grades of education; 25.5 per cent of the husbands and 22.4 per cent of the wives 1-3 years of high school; and 23.6 per cent of husbands and 7.9 per cent of the wives were high school graduates. Very few of the husbands and still a lesser proportion of wives had a college education (Table A-6).

Of those who reported their family income, almost 50 per cent of the families had an annual family income of $1,500 or less and another 26.4 per cent between $1,501 and $3,000, consequently, three-fourths of the families had an income of $3,000 or less (Table A-7).

In summary, approximately one-third of the respondents (interviewees) are divorced, separated, widowed or deserted, approximately 40 per cent of the husbands and about 57 per cent of the wives were under 40 years of age. There were 21 other adults living with these families and most of them were in the older age group. There were also a total of 291 children of all ages, and of these 264 were 18 years of age or younger. Regarding socio-economic status of the families, approximately one-third of the husbands and about 75 per cent of the wives were not employed and those who were employed most of them were in low status jobs. A majority of both husbands and wives had low education; and about three-fourths of the families had an annual income of $3,000 or less.

The data further show that for most of these families the major sources of funds for medical care are from State and Federal assistance. The respondents were asked: "How do you meet the expenses for your family's medical care?" Multiple sources of funds are reported. The primary sources are Indian Agent, State help and Medicare. However, these families apparently have to supplement the health care expenses by cash from household funds, savings, insurance, and by borrowing from various sources (Appendix A, Table A-8). Any private health insurance was practically non-existent among these families.

Self-Evaluation of Health

The respondents were asked to rate their own health and that of their spouse and children as excellent, good, fair or poor. The data show that 56.7 per cent of the husbands and 58.9 per cent

of the wives received a rating of "excellent" or "good" and 85.9 per cent of the children and 81.9 per cent of other adults received the rating in the same categories. The respondents tend to be more optimistic about the health of the children than that of adults. However, a significant proportion of both husbands and wives (40.7 per cent and 41.0 per cent) received ratings in the last two categories of "fair" or "poor." (Table 1)

For comparative purposes data may be presented from other studies. A national study of adults of all ages in 1955 showed that 30 per cent of the respondents rated their health as "excellent," and 38 per cent "good," 25 per cent "fair" and seven per cent "poor."[28] In another study in 1959 (excluding older people) it was found that 31 per cent rated their health as "excellent," 45 per cent "good," 20 per cent "fair" and four per cent "poor."[29] In another study nine per cent of the respondents rated their health as "excellent," 29 per cent "good," 38 per cent "fair," and 24 per cent "poor."[30] In the same study 64 per cent rated their children's health as "excellent" or "good." In the 1955 study 92 per cent of the respondents rated their children's health as "excellent" or "good."

Patterns and Sources of Medical Care

In this study data were also collected on the patterns and sources of care for the sample families. Such information may be important in determining the use of health services by the sample population.

The respondents were asked: "Is there a particular medical person or clinic you or any family member go to when you are

sick or for advice about health?" Information was collected concerning all the members in the family. Our data show (Table 2) that approximately three-fourths of husbands, wives, as well as children have some regular source of care.

The data by type of source were collected for those who had a regular source of care. These data are presented in Table 3. It is apparent that a physician (mostly a GP rather than a specialist) is the primary source of care for adults as well as for children. It may be noted, that 11.3 per cent of the husbands, 13.4 per cent of the wives and 15 per cent of the children have a clinic as a source of care and in addition, 4.4 per cent of the husbands, 3.4 per cent of the wives and 6.8 per cent of the children have a nurse as a source of care.

In a nationwide study, 87 per cent of the sample indicated that they had some regular source of care.[31] This study showed considerable differences in sources of care by family income. Low income families are less likely to have a regular source of care, and are more likely to use clinics and general practitioners, whereas "thirty-eight per cent of those with high family incomes use specialists as their regular source of care. This proportion is five percentage points greater than that for middle income people and almost twice as large as the proportion of low income people who use specialists as their regular pratitioners."[32]

When we consider our total sample (adults and children), approximately three-fourths had some regular source of care, which is lower than the general population. Our findings are consistent with other studies, that is, that the low income families are less likely than high income families to use a specialist's services. According to a U. S. Department of Health, Education and Welfare

TABLE 1

RESPONDENTS' SELF-EVALUATION OF HEALTH, AND RATING OF HEALTH OF SPOUSE, CHILDREN AND OTHER ADULTS (IN PER CENT)

Health Rating	Husband N = 59	Wife N = 78	Children N = 291	Other Adults N = 21
Excellent	22.0	19.2	30.9	19.0
Good	35.6	39.7	55.0	42.9
Fair	28.8	26.9	11.7	28.6
Poor	11.9	14.1	2.4	9.5
No information	1.7	----	----	4.8

TABLE 2

REGULAR SOURCE OF MEDICAL CARE BY ADULTS AND CHILDREN

Source of Care	Husband		Wife		Children	
	F	%	F	%	F	%
Have regular source of care	45	76.2	59	75.6	220	75.6
No regular source of care	14	23.8	19	24.4	56	19.2
No information	--	----	--	----	15	5.2
Total	59	100.0	78	100.0	291	100.0

TABLE 3

SOURCES OF REGULAR CARE BY TYPE OF SOURCES: ADULTS AND CHILDREN

Sources of Care	Husband		Wife		Children	
	F	%	F	%	F	%
Physician	35	77.7	48	81.5	166	75.5
Clinic	5	11.3	8	13.4	33	15.0
Hospital	--	----	--	----	2	0.9
Nurse	2	4.4	2	3.4	15	6.8
Did not specify	3	6.6	1	1.7	4	1.8
Total	45	100.0	59	100.0	220	100.0

publication, "among the civilian, nonistitutional population of the United States, a greater percentage of persons in high income families consulted selected types of medical specialists and practitioners during the year ending 1964 than did persons in low income families."[33] The data further show that "for each selected type of specialist, family income had a direct relationship to the percentage of persons consulting that particular specialist."[34]

The data presented above show that almost one-fifth of the sample do not have a regular source of care, and for those who do have some regular source of care, general practitioners, clinics or nurses are such a source. These data indicate in general whether the sample population use a particular medical person or clinic for advice about health and illness. Additional data were collected to explore the general utilization patterns of physician services, percipitating factors in contacting a physician, and first action taken when medical care is needed.

Responses or reactions to sickness may be varied. The initial reaction to illness may involve self-medication or consultation with friends, neighbors, or relatives before consulting a physician. The lay consultation may precede professional consultation.[35] Suchman found that a high percentage of his respondents had discussed their symptoms with other persons, usually a relative, before seeking medical care.[36] In the present study when asked, "What do you do first when you need medical attention?" 77.8 per cent indicated that they call a doctor, and another 11 per cent go to a hospital. A very few indicate that they use home care, consult a friend or neighbor, call a nurse or clinic (Table 4).

Many factors may influence one's decision to consult a physician.[37] Being "sick" in itself may not be sufficient reason to make contact with a physician. It may involve other manifest conditions or symptoms or even financial considerations. The data from this study show (Table 5) that "pain," "fever," and "feeling poorly," were the most frequently mentioned factors in initiating contact with a physician. Other less frequently mentioned factors are: "when money is available" "when told by others" "when need to" and "when required to."

In terms of general utilization patterns of physician services, the data do not show any regular pattern. In this case we are not dealing with the particular factors which might influence one's decision or "push" one to seek care, but rather with general use of physician's services. Approximately two-thirds of the sample go to a doctor "only when sick" and the remaining third reported some regular use of physician's services[38] (Table 6).

Attitudes Toward Health Care

One of the factors which might influence a person's general readiness to seek care is his attitudes toward personal health and medical care. Some authors relate the use of health services to the knowledge, attitudes, particular socio-medical orientations and other factors.[39] The lower classes seem to be more skeptical of the value of routine preventive care, early consultation and the treatment, and these attitudes subsequently may interfere with the receipt of medical care in time.[40]

In this study as attempt was made to ascertain the attitudes

TABLE 4

FIRST ACTION TAKEN WHEN MEDICAL ATTENTION IS NEEDED BY FAMILIES

N = 90

Response	Frequency	Per cent
Call a doctor	70	77.8
Go to a hospital	10	11.1
Go to a clinic	5	5.6
Call a nurse	1	1.1
Consult a friend or neighbor	1	1.1
Other[a]	3	3.3
Total	90	100.0

[a]Include such items as: home care, maternal care.

TABLE 5

FACTORS INITIATING CONTACT WITH A PHYSICIAN BY FAMILIES

N = 90

Symptoms and Conditions	Frequency	Per cent	N
Have pain	39	43.3	90
Have fever	37	41.1	90
When money is available to pay doctor	6	6.7	90
When first feel poorly (health)	41	45.6	90
When someone tells (you) that you should	8	8.9	90
Other[a]	9	10.0	90

[a]Include such items: "when needed," "when required to."

TABLE 6

GENERAL UTILIZATION PATTERNS OF PHYSICIAN SERVICES BY FAMILIES

N = 90

Response	Frequency	Per cent
Only when sick	59	65.5
At least once a year	18	20.0
At least twice a year	7	7.8
More than three times a year	6	6.7
Total	90	100.0

of the respondents toward routine visits to a physician, routine visits to a dentist and the desirability of regular health checkups for adults and children.

Regarding general routine visits to a physician our data show (Table 7) that a little under 60 per cent of the respondents recognize the desirability of routine visits to a physician. For instance approximately 21 per cent endorse the statement that one should see a physician "at least once a year for a physical examination," 26.7 per cent "at least twice a year," and 6.7 per cent "three or more times a year." However, a little over 40 per cent endorse the statement that one should see a physician "only when sick" (symptomatic care).

The data reported in Table 8 show that the desirability of preventive dental care is even more widely accepted by the respondents. Approximately three-fourths of the respondents indicate that a person should see a dentist one or more times a year.

To ascertain further the attitudes of the respondents toward health care they were asked: "Do you feel that regular health checkups are important?" The data reported in Table 9 show that approximately 92 per cent of the respondents respond affirmatively to this question.

Concerning the children's dental care, a little under 90 per cent (Table 10) of the respondents indicate that children should see a dentist one or more times a year.[41]

The data presented here show that the desirability of preventive dental care and health checkups is more widely accepted by these families than routine preventive visits to a physician.

TABLE 7

RESPONDENTS' ATTITUDES TOWARD ROUTINE VISIT TO A PHYSICIAN

N = 90

How often do you think one should see a doctor?	Frequency	Per cent
Only when sick (symptomatic)	39	43.3
At least once a year for a physical examination	19	21.1
At least twice a year	24	26.7
Three or more times a year	6	6.7
Other	2	2.2
Total	90	100.0

TABLE 8

RESPONDENTS' ATTITUDES TOWARD ROUTINE VISITS TO A DENTIST

N = 90

How often do you think a person should see a dentist?	Frequency	Per cent
Only when absolutely necessary (symptomatic care)	15	16.7
Once a year	25	27.8
Twice a year	36	40.0
Three or more times a year	13	14.4
No information	1	1.1
Total	90	100.0

TABLE 9

RESPONDENTS' ATTITUDES TOWARD REGULAR HEALTH CHECKUPS

N = 90

Do you feel that regular health checkups are important?	Frequency	Per cent
Yes	83	92.2
No	6	6.7
No information	1	1.1
Total	90	100.0

Though further discussion on attitudes and behavior is presented later, it may be noted here that one's "positive" attitudes toward health and health-care may not be reflected in one's actual health behavior, that is, the actual use of health-care services.[42] Other factors such as one's ability to procure medical care and the availability of and accessibility to such services may be important considerations in the actual use of health services. Our own findings presented later show that not only do these families have high episodes of illness, but they also have a rather low utilization of medical services.

Perception of Services

In this study we were also interested in the respondent's perception of the "availability" and "adequacy" of medical services. Our data show (Table 11) that close to 45 per cent of the respondent's perceive that medical services are "available and adequate." Approximately 26 per cent of the respondents perceive that medical services are "available, but not adequate," 14.4 per cent "available for minor illnesses," 10.0 per cent "available only for emergency care," 2.2 per cent "services and facilities are not available."

However, when the question was asked concerning the availability of services for particular ailments, a somewhat different picture emerges. The data reported in Table 12 show that 61.1 per cent, 36.7 per cent, 54.4 per cent, 64.4 per cent, perceive that the medical services are "available" for stroke, cancer, heart disease and heart attack, respectively. More of the respondents perceive that medical service are available for heart attack, heart

TABLE 10

RESPONDENTS' ATTITUDES TOWARD ROUTINE VISIT TO A DENTIST BY CHILDREN

How often do you think children should see a dentist?	Frequency	Per cent
Once a year	9	17.0
Twice a year	24	45.3
Three or more times a year	13	24.5
Only when absolutely necessary (symptomatic care)	6	11.3
Never	1	1.9
Total	53[a]	100.0

[a]Twenty-nine respondents had no children 18 or younger, three others gave no information and five indicated children too young to see a dentist.

TABLE 11

RESPONDENTS' PERCEPTION OF THE AVAILABILITY AND ADEQUACY OF MEDICAL SERVICES

N = 90

Response	Frequency	Per cent
Available, but not adequate	23	25.6
Available and adequate	40	44.5
Available for minor illnesses	13	14.4
Available only as emergency care	9	10.0
Exists in community, but not available to my family	2	2.2
Do not exist (services and facilities are not available)	2	2.2
No information	1	1.1
Total	90	100.0

TABLE 12

RESPONDENTS' PERCEPTION OF THE AVAILABILITY OF MEDICAL SERVICES FOR STROKE, CANCER HEART DISEASE AND HEART ATTACK

Ailments	Those Reporting Available		
	F	%	F
Stroke	55	61.1	90
Cancer	33	36.7	90
Heart disease	49	54.4	90
Heart attack	58	64.4	90

disease and stroke than for cancer.

It would be interesting to relate respondents' perception of services to the objective state of affairs, that is, the actual amount of medical services and facilities in that area. Other areas of investigation might include: the relationship between perceptions and actual use of services and the relationship of perceptions to various socio-economic characteristics of the sample.

Summary

The personal health needs, health and illness behavior and availability of and accessibility to medical services is the primary concern of this report. Data were collected by household interviews and the questions on health-care pertaining to all members of the family were directed to an adult member. In this manner, though interviews were conducted with 90 respondents, a varying degree of information was collected on 449 individuals.

Regarding socio-economic status of the families, approximately one-third of the husbands were unemployed and of those who were employed most held low status jobs. A majority of both husbands and wives had low education, and about three-fourths of the families had an annual income of $3,000 and less. For most of these families the primary sources of funds for health care are the Indian Agent, State help and Medicare. However, families apparently have to supplement the health care expenses by cash from household funds, personal savings, and by borrowing from various sources.

The respondents tend to be more optimistic about their children's health than their own or their spouse's health. However,

a significant number of both husbands and wives, 40.7 per cent and 41 per cent, respectively, received ratings in the last two categories of "fair" or "poor."

Approximately three-fourths of our sample population have some regular source of care. A general practitioner rather than a specialist is the primary source of care for adults as well as for children. Also, 11.3 per cent of the husbands, 13.4 per cent of the wives and 15 per cent of the children have a clinic as a regular source of care, and 4.4 per cent of the husbands, 3.4 per cent of the wives and 6.8 per cent of the children have a nurse as a regular source of care. Therefore, the findings show that almost one-fifth of the sample do not have a regular source of care, and for those who do have some regular source of care, general practitioners, clinics or nurses are such a source.

In terms of general utilization patterns of services, approximately two-thirds of the sample do not indicate any regular pattern of visit to a physician, that is, they see the doctor "only when sick."

A majority of the respondents recognize the importance and desirability of routine-preventive care. However, the desirability of preventive dental care and health checkup is more widely accepted by these families than routine visits to a physician.

Approximately 45 per cent of the respondents perceive that the medical services are "available and adequate" in their area. Concerning the availability of services for particular ailments, more of the respondents perceive that medical services are available for heart attack, heart disease and stroke than for cancer. It

would be interesting to relate respondents' perception of services to the actual amount of medical services and facilities in that area, their utilization of services, illness episodes and to their socio-economic characteristics.

FOOTNOTES CHAPTER I

[1]Milton Roemer, "Changing Patterns of Health Service: Their Dependence on a Changing World," The Annals of the American Academy of Political and Social Science, Vol. 346 (March 1963); Herman M. Somers, Doctors, Patients and Health Insurance (Washington, D. C.: The Brookings Institute) 1961, p. 27; Iago Galdston, Medicine in Transition (Chicago, Illinois; The University of Chicago Press) 1965, pp. 15-16; Marvin K. Opler, "The Industrial Societies and the Changing Role of Doctors," Journal of Occupational Medicine, IV (May 1962) pp. 237-241; See also Richard M. Titmuss, Essays on the Welfare State (London: Allen and Unwin Ltd.) 1960 pp. 178-202.

[2]Somers and Somers, op. cit., p. 37; Talcott Parsons "Social Change and Medical Organization in the United States: A Sociological Perspective," The Annals, op. cit., pp. 21-33; Milton I. Roemer, op. cit., pp. 44-56; M. W. Susser and W. Watson, Sociology in Medicine (London: Oxford University Press) 1962, pp. 151-187. "Volume of Physician Visits: United States - July 1966-June 1967," Vital and Health Statistics, Series 10, No. 49, November 1968; J. N. Haug, G. A. Roback, Distribution of Physicians, Hospitals and Hospital Beds in the U. S. 1967, Department of Survey Research, American Medical Association, Chicago, 1968.

[3]Report of the National Advisory Commission on Health Manpower, Volume 1, November 1967, (Washington, D. C.: Government Printing Office), p. 3.

[4]Ibid., p. 2.

[5]Costs and Delivery of Health Services to Older Americans, Hearing before the Subcommittee on Health of the Elderly of the United States Senate, Part I, 1967, p. 335 (see Table).

[6]See Statistical Abstracts of the United States, 1968, p. 64 (Table).

[7]Rural Poverty, Conference Proceedings of the National Association for Community Development, January 30-February 1, 1967, (Washington, D. C.) National Association for Community Development, April 1967, p. 1.

[8]Report of the National Advisory Commission on Health Manpower, op. cit., p. 37; The Size and Shape of the Medical Care Dollar, U. S. Department of Health, Education and Welfare, Social Security Administration.

[9]W. G. Rimlinger and H. B. Steele, "Economic Interpretation of the Spatial Distribution of Physicians in the United States," Southern Economic Journal, XXX (July 1963) pp. 1-12.

[10]"The greater metropolitan centers have nearly four times as many physicians per 100,000 people as the isolated rural areas. Furthermore, these small town physicians are older, less well trained, and work longer hours; nearly one-third of the physicians in rural areas are semiactive physicians over 65 years of age, contrasted with 12 per cent of the urban physicians." "Health and Medical Care," in Sociology of Social Problems, eds. Paul B. Horton and Gerald R. Leslie (New York: Appleton Century Crofts) 1965, pp. 584 629, p. 589.

[11]Delivery of Health Services for the Poor, U. S. Department of Health, Education and Welfare, 1967 - 12, (Washington, D. C.: Government Printing Office) December 1967, pp. 3-4.

[12]Ibid., p. 4.

[13]For preliminary findings see: Availability, Accessibility and Utilization of Selected Medical Services: A Study of Fifteen Rural Communities, A Publication of Maine's Regional Medical Program Research and Evaluation Service, January 1970 and Supplement to January, 1970 report June 1970. Also Major Illnesses, Hospitalization, Maternal and Pediatric Care: A Study of Fifteen Rural Communities, June 1970.

[14]For preliminary findings see: Availability, Accessibility, and Utilization of Selected Medical Services: A Study of American Indians in Maine, A publication of Maine's Regional Medical Program Research and Evaluation Service, September, 1969.

[15]For preliminary findings see: Availability, Accessibility and Utilization of Selected Medical Services: A Study of a Rural Community in Maine, A publication of Maine's Regional Medical Program Research and Evaluation Service, February 1970 and Supplement to February 1970 Report, March 1970.

[16]For preliminary findings see: Availability, Accessibility and Utilization of Selected Medical Services: A Study of Low Income Families, A publication of Maine's Regional Medical Program Research and Evaluation Service, February,1970, and Supplement to February 1970 Report, June 1970.

[17]The Maine Handbook: A Statistical Abstract 1968, "Selected Indian Population Characteristics," From U. S. Census of Population, (1960), Special Table PH-1.

[18]Rural Indian Americans in Poverty, U. S. Department of Agriculture, Economic Research Service, Economic Report No. 167 (Washington, D. C.: U. S. Government Printing Office) 1969, p. 6.

[19]The Maine Handbook, op. cit.

[20]Rural Indian Americans in Poverty, op. cit., p. 5.

[21]The Maine Handbook, op cit.

[22]Rural Indian Americans in Poverty, op. cit., p.44.

[23]The Indian Health Program of the Public Health Service, U. S. Public Health Service Publication No. 1026 (Washington, D. C.: U. S. Government Printing Office) 1969, p. 1.

[24]Ibid., pp. 20-22

[25]Annual Statistical Review, Hospital and Medical Services Fiscal Year 1968, U. S. Public Health Service Publication (Washington, D. C.: U. S. Printing Office) March 1969, p. 28.

[26]Ibid., p. 34.

[27]Ibid.

[28]Survey 367 (NORC), conducted for the Health Information Foundation (Quoted in Goodrich, et al.).

[29]U. S. Department of Health, Education and Welfare, "Attitudes Toward Cooperation in a Health Examination Survey," Health Statistics (Washington, D. C.: Government Printing Office) Series D-No. 6, July 1961 (from Goodrich)

[30]Charles H. Goodrich, et al., Welfare Medical Care: An Experiment, (Cambridge, Massachusetts, Harvard University Press) 1970

[31]Ronald Andersen and Odin W. Anderson, A Decade of Health Services (Chicago: The University of Chicago Press) 1967, p. 14.

[32]Ibid., p. 15.

[33]U. S. Department of Health, Education and Welfare, "Characteristics of Patients of Selected Types of Medical Specialists and Practitioners United States: July 1963-June 1964," National Center for Health Statistics, Series 10, No. 28, 1966, p. 1. See also literature reviewed in Chapter II.

[34]Ibid.

[35]Eliot Friedson, "Client Control and Medical Practice," American Journal of Sociology, 65 (January 1960) pp. 374-382.

[36]Edward Suchman, "Stages of Illness and Medical Care," Journal of Health and Human Behavior, 6 (Fall 1965)

[37]See for example, David Mechanic and Edmund Volkart, "Stress, Illness Behavior and the Sick Role," American Sociological Review, Vol. 26 (February 1961) pp. 51-59; Dorrian Apple Sweetser, "How Laymen Define Illness," Journal of Health and Human Behavior, Vol. 1 (Spring 1960) pp. 219-225; Charles Kadushin, "Individual Decisions to Undertake Psychotherapy," Administrative Science Quarterly,

Vol. 3, (December 1958), pp. 379-411; Erwin L. Linn, "Agents, Timing, and Events Leading to Mental Hospitalization," Human Organization, Vol. 20 (Summer 1961) pp. 92-98; Eliot Freidson, Patient's View of Medical Practice (New York: Russell Sage Foundation) 1961.

[38] In response to another question: "Do you see a doctor only when you are sick or hurt?" Approximately 79 per cent replied in the affirmative. In response to the question "Where do you take your children when they are sick or hurt?" Approximately 86 per cent reported "to a doctor's office." The physician apparently is the prime source of care.

[39] See for example, Daniel Rosenblatt and Edward A. Suchman "The Underutilization of Medical-Care Services by Blue-Collarites," in Arthur B. Shostak, William Gombarg, (eds.), Blue-Collar World (Prentice Hall) 1964, pp. 341-349; J. A. Ross, "Social Class and Medical Care," Journal of Health and Human Behavior, 3 (Spring 1962) Saxon Graham, "Socio-economic Status, Illness and the Use of Medical Services," Milbank Memorial Fund Quarterly, 35 (January 1957) pp. 58-66; Irving K. Zola, "Illness Behavior of the Working Class: Implications and Recommendations," in Arthur B. Shostak and William Gombarg, Blue-Collar World (Prentice Hall) 1964, pp. 350-361; S. Lowry, et al., "Factors Associated with the Acceptance of Health Care Practices Among Rural Families," Rural Sociology, 23 (June 1958) pp. 198-202; E. A. Suchman, "Health Orientations and Medical Care," American Journal of Public Health, 56 (November 1965) pp. 97-105; E. A. Suchman, "Sociomedical Variations Among Ethnic Groups," American Journal of Sociology, 70 (1964) pp. 319-331; E. A. Suchman, "Social Patterns of Illness and Medical Care," Journal of Health and Human Behavior, 6 (1965) pp. 2-16; D. Phillips, "Self-Reliance and the Inclination to Adopt the Sick-Role," Social Forces, 43 (1965) pp. 555-563; G. MacGregor, "Social Detriments of Health Practices," American Journal of Public Health, 51 (November 1961) pp. 1709-1714; Lyle Saunders, Cultural Differences and Medical Care (New York: Russel Sage Foundation) 1954. For other studies see Chapter II.

[40] Earl L. Koos, The Health of Regionville (New York: Columbia University Press) 1954.

[41] One must note the difference between the other questions on attitudes and this particular question on children's dental care. The other questions are stated in more general impersonal terms, i.e., "How often one should or How often should a person," whereas this question was worded as "How often do you think your children should see a dentist," Therefore the respondents answered the question in terms of their own children, that is why some respondents did not answer the question and stated that their children are too young to see a dentist.

[42] See also, Edward Hassinger and Robert L. McNamara, "Stated Opinion and Actual Practice in Health Behavior in a Rural Area," Midwest Sociologist, 19 (May 1957); Suzanne M. Selig and Bhopinder S. Bolaria, Attitudional and Social Correlates of Health and Sickness Behavior of American Indians in the State of Maine, A publication of Maine's Regional Medical Program Research and Evaluation Service, August, 1970.

CHAPTER II

HEALTH AND ILLNESS BEHAVIOR

The study of "medical behavior" has produced a large body of theoretical and empirical literature. Much of this literature concerns the study of differential attitudes toward health and illness, differential health practices, variability of reactions to symptoms and illnesses, and variability in the use of health services.

The purpose of this chapter is to discuss relevant theoretical orientations and empirical literature pertaining to health and illness behavior.[1]

Theoretical considerations

Kasl and Cobb provide a classification of various behaviors in this area, namely, health behavior, illness behavior and sick-role behavior.

> Health behavior is any activity undertaken by a person believing himself to be healthy, for the purpose of preventing disease or detecting it in an asymptomatic stage.
>
> Illness behavior is any activity undertaken by a person who feels ill, to define the state of his health and to discover a suitable remedy. The principal activities here are complaining and seeking consultation from relatives, friends, and those trained in matters of health.
>
> Sick role behavior is activity undertaken by those who consider themselves ill, for the purpose of getting well. It includes receiving treatment from appropriate therapists, generally involves a whole range of dependent behaviors and leads to some degree of neglect of one's usual duties.[2]

According to Kasl and Cobb, the likelihood of one's engaging in a particular behavior is a function of "the perceived amount of threat and the attractiveness of the behavior."[3] According

to the authors, the amount of threat depends on at least the following variables:

> (1)The importance of health matters to the individual, (2)the perceived susceptibility to the disease in question, and (3)the perceived seriousness of the consequences of the disease.[4]

And the attractiveness or value of the action depends on:

> (1)the perceived probability that the action will lead to the desired preventive or ameliorative results, and (2)the unpleasantness or 'cost' of taking the action compared with taking no action and suffering the consequences.[5]

In summary Kasl and Cobb note:

> It appears that most of the variance in regard to health behavior is accounted for by the interaction of perceived threat of disease and perceived value of preventive action. Since both of these perceptions seem to be influenced by education, occupation and income, it is not surprising that social class often appears significant. With regard to symptoms and illness behavior, it is clear that the most important additional variable is psychological distress, especially depression. . . . Finally, the sequence from disease to sick role behavior is probably further influenced by the individual's motivation to get well and by the demands of the sick-role norms, which in turn are affected by certain personality and situational characteristics.[6]

It is apparent from the above discussion that the individual's perception of threat of disease and the attractiveness of preventive action play an important role in the individual's health behavior. However, social class is apparently an important variable in influencing these perceptions. Concerning illness behavior, the additional variable is psychological distress, and sick-role behavior is further influenced by one's motivation to get well and by the demands of the sick role norms.

King also emphasizes the importance of perception of illness in any health related action, the way one "sees or perceives

the situation of disease and all of the social ramifications that accompany it."[7] Mechanic's concept of illness behavior has a similar basis, and is concerned with "the ways in which given symptoms may be differentially perceived, evaluated and acted (or not acted) upon by different kinds of persons."[8]

Rosenstock also suggests that preventive health behavior is determined by one's perception of the seriousness of and susceptibility to the problem, perceived benefits of taking action and barriers to taking action and cues to action.[9] Rosenstock's health behavior model is based on individual motivation and beliefs and includes two classes of variables: individual's readiness (psychological) to act and the belief that a particular course of action would be beneficial on the whole, in reducing the threat of illness.[10] Rosenstock states that an individual's decision to participate in preventive health behavior will not be made unless the following conditions are satisfied.

> 1. The individual is psychologically ready to take action relative to a particular health condition. The extent of readiness to act is defined by whether the individual feels susceptible to the conditions in question and the extent to which its possible occurrence is viewed as having serious personal consequences.
>
> 2. The individual believes that the prevention or test in question is both feasible and appropriate for him to use, would reduce either his perceived susceptibility to or the perceived severity of the health conditions, and no serious psychological barriers to the proposed action are present.
>
> 3. A cue or stimulus occurs to trigger the response.[11]

Zola, approaching the problem from a somewhat different perspective, presents a sequential model consisting of "five triggers" in an individual's decision to seek medical care.[12] These are:

(1)interpersonal crisis (whereby attention is called to the symptom); (2)social interference (the symptom threatens the individual's social activity); (3)the presence of sanctioning (other telling him to seek help); (4)perceived threat of the symptom (cognitive response); and (5)the nature and quality of the symptom (involves similarity of symptoms to previous one or those of his friends and relatives in order to decide whether to seek help).[13] Zola also reports that these triggers are viewed differently in importance by various social strata and ethnic groups. Among the Italians the predominant pattern was "interpersonal crisis" and "social interference," "sanctioning" was the predominant Irish pattern, and "nature and quality of their symptoms" was most often used by Anglo-Saxons.

Suchman presents stages of illness and medical care, discerning five stages "demarcating critical transition and decision making points in medical care and behavior."[14] These stages are symptom experience, sick-role, medical-care contact, dependent-patient role and rehabilitation.

Parson's conception of the sick-role implies that one's illness needs to be legitimized by others, which includes the medical profession, one's intimates or people who have influence over him.[15] When illness is legitimized the person assumes a sick-role, which supercedes one's other role obligations. This new role includes new rights and obligations. The sick-role permits him to break other commitments in order to seek medical care without fear of reprisal and the right "to be taken care of." At the same time it imposes specific norms both on the individual and other people near to him, such as his family. He had the obligation to "want to get well" and to follow "doctor's orders."

Andersen's "behavioral model of families' use of health services" is composed of predisposition, ability and need components.[16] The model suggests that a sequence of conditions contribute to the volume of health services used. Use of services is dependent on: (1)the predisposition of the family to use health services; (2)their ability to secure services; and (3)their need for such services,"[17] Elaborating on this model, Andersen discusses the "predisposing" component:

> The family composition, the social structure and health beliefs make up the predisposing component. Family composition includes age, sex and family size; the social structure reflects the location of a family in society measured by characteristics of the family's main earner, such as employment, social class, occupation, education, race and ethnicity.[18]

The third element in the "predisposing" component is health beliefs, which include "beliefs about medical care, physicians and disease." As he states:

> What a family thinks about health may ultimately influence health and illness behavior. For example, families who strongly believe in the efficiancy of the treatment of their doctors might seek a physician sooner and use more services than families with less faith in the results of the treatment.[19]

The "ability" component includes both family resources (family income) and community resources. The "need" component includes both measures of actual illness and families' perception of illness.[20]

Feldstein, in his analysis of community expenditures and utilization patterns, includes both socio-demographic and economic factors.

> Expenditure on medical care is related to both a series of socio-demographic factors reflecting different utilization patterns and probabilities of illness and to a set of economic variables reflecting the ability of persons,

given certain socio-demographic characteristics, to purchase medical care.[21]

Other writers have emphasized the role of cultural, ethnic and social class differences in health and illness behavior. These writers primarily view the health and illness behavior as a socially learned response. Thus Koos observed that "the health attitudes and behavior of a family are related to its position in the social class hierarchy of the community, and are significantly affected by the prescriptions and proscriptions regarding health shared by those who are members of the same social class."[22] Koos underlines the variation of health related activities from one social stratum to another based on differential perception of health and illness. For instance, upper-class were more likely than lower-class persons to view themselves as ill when they had particular symptoms and were more likely to seek medical advice. In brief, Koos emphasized two factors: (1)social-class differences in opinions, attitudes and behavior; and (2)perceptions of illness and health which are dictated by culture and environment. These factors operate concurrently and in an integrated fashion, and are vital to what one regards as necessary for health.[23] These factors also influence what the individual "will or will not, can or cannot, expect or accept from those who make his health their professional concern."[24]

Saunders notes the differences between Spanish-speaking Americans and Anglos in their attitudes and responses to illness and their use of health facilities.[25] The Anglos preferred modern medicine for many illnesses and the Spanish-speaking people were more likely to use home remedies or folk medicine and family care. Similar

observations have been made concerning other groups in various cultural contexts.[26-35]

The role of cultural and ethnic differences in illness behavior is described by Zborowski in his study of Jewish, Italian, Irish, and "old Americans."[36] Both the Jewish and the Italian patients respond emotionally to pain and tend to exaggerate the pain experience, Irish tend to deny pain and "old Americans" tend to be stoical and "objective." Zborowski views these behavioral differences in the light of the familial response to children's health and illness among the Jewish and Italian families. He reports that:

> Crying in complaint is responded to by parents with sympathy, concern and help. By their over-protective and worried attitude they foster complaining and tears. The child learns to pay attention to each painful experience and to look for help and sympathy which are readily given to him. In Jewish families, where not only a slight sensation of pain but also each deviation from the child's normal behavior is looked upon as a sign of illness, the child is prone to acquire anxieties with regard to the meaning and significance of these manifestations.[37]

Ethnic differences in illness behavior have been described in a variety of other studies.[38-41] These studies show a considerable variation in illness behavior by ethnicity.

The response to illness may also take the form of self-help or self-medication and consultation with relatives, friends, and neighbors.[42-44] Also some writers relate the delay in seeking medical-help to particular medical orientations and socio-economic factors.[45-50]

Based upon the above studies, it seems fair to state that social class, cultural values, ethnicity and medical orientations play an important part in differential patterns of health and illness behavior.

Mechanic points out that illness behavior may be seen ". .as part of a larger coping process-one in which illness behavior may be seen as part of a coping repertory, as an attempt to make an unstable, challenging situation more manageable for the person who is encountering difficulty."[51] He also notes that "if we are to make progress in the study of illness behavior, it becomes necessary to move beyond gross cultural and social differences in illness behavior patterns toward the development of a social-psychological model, which gives a clear perception of the processes involved when someone seeks help."[52] According to him the factors which affect the individual's response to illness are:

1. Visibility, recognizability, or perceptual salience of deviant signs and symptoms.
2. The extent to which the symptoms are perceived as serious (that is, the person's estimate of the present and future probabilities of danger.)
3. The extent to which symptoms disrupt family, work, and other social activities.
4. The frequency of the appearance of the deviant signs or symptoms, their persistence or their frequency of recurrence.
5. The tolerance threshold of those who are exposed to and evaluate the deviant signs and symptoms.
6. Available information, knowledge, and cultural assumptions and understanding of the evaluator.
7. Basic needs which lead to artistic psychological processes (i.e., Perceptual processes that distort reality).
8. Needs competing with illness responses.
9. Competing possible interpretations that can be assigned to the symptoms once they are recognized.
10. Availability of treatment resourses, physical proximity, and psychological and monetary costs of taking action (included are not only physical distance and costs of

> time, money and effort, but also such costs as stigma, social distance, feelings of humiliation, and the like).[53]

In summary, according to Kasl and Cobb, the individual's perception of threat of disease and the attractiveness of preventive action play an important role in his health behavior. These perceptions to a great extent are influenced by one's social class background. Concerning illness behavior, the additional variable is psychological distress, and sick-role behavior is further influenced by one's motivation to get well and by the demands of the sick-role norms. King also emphasizes the importance of perception of illness in any health related action, the way one "sees or perceives the situation of disease and all of the social ramifications that accompany it." Mechanic's concept of illness behavior has a similar basis, and is concerned with the "ways in which given symptoms may be differentially perceived, evaluated and acted (or not acted) upon by different kinds of persons." Rosenstock also suggests that preventive health behavior is determined by one's perception of the seriousness of and susceptibility to the problem, perceived benefits of taking action and barriers to taking action and cues to action. He takes into account one's readiness (psychologically) to act and the belief that a particular course of action would be benificial on the whole, in reducing the threat of illness. Zola, approaching the problem from a somewhat different perspective, presents a model consisting of "five triggers" in an individual's decision to seek medical care. These are: interpersonal crisis, social interference, the presence of sanctioning, perceived threat of the symptom and the nature and quality of the symptom. Zola reports that these triggers

are viewed differently in importance by various social strata and ethnic groups. Suchman presents stages of illness and medical care discerning five stages "demarcating critical transition and decision making points in medical care and behavior." These stages are symptom experience, sick-role, medical-care contact, dependent patient role, and rehabilitation. Parson's conception of the sick-role implies that one's illness needs to be legitimized by others, which includes the medical profession, one's intimates or people who have influence over him. Andersen's "behavioral model of families' use of health services" is composed of predisposition, ability and need components. Use of services is dependent upon these components. Koos, Saunders, and Zborowski, among others, emphasize the role of cultural, ethnic and social class difference in health and illness behavior. Response to illness may also take the form of self-help and medication and consultation with "lay" persons. Others relate the delay in seeking medical help to the particular socio-medical orientations of various groups. Mechanic presents an elaborate list of factors affecting the individual's response to illness, which includes both socio-psychological and socio-economic factors.

Review of Relevant Literature

The purpose of this section is to present studies dealing directly or indirectly with "medical behavior" of the populace. A review of the literature will show that there is considerable variability and range of responses to symptoms, considerable variation in health behavior, illness behavior, and the utilization of medical services. Our emphasis is primarily on the use of physician's

services, routine preventive care, hospital services, maternal care, dental care, and the delay in the utilization of various health services.

Most of the data available in this field show that health services utilization is directly related to socio-economic status. The lower socio-economic groups are less likely to utilize medical facilities. Not only is there low utilization of medical facilities by the lower socio-economic group, but there is also high morbidity and mortality. As is noted in a U. S. Department of Health, Education and Welfare publication:

> In spite of the existence of a complex set of interrelationships of heredity, distribution and availability of medical facilities and services, behavior toward health care, environmental conditions, and socio-economic factors, which are difficult to distinguish, there is an undisputable association of increased morbidity and mortality with poverty. (italics mine)[54]

The data show that a high proportion of persons from low income families have chronic conditions with limitation of activities, have almost double the days of restricted activity per year as compared to those with high incomes, have a larger proportion of multiple hospital episodes, low life expectancy, and high maternal and infant mortality.[55] The publication also lists various barriers to the receipt of medical services by the poor. These are: inability to pay, fragmentation of care, operation features of providing the services, attitudes toward general health care, racial discrimination in providing services, and lack of medical facilities and manpower.[56]

Socio-economic status plays a predominant role in the utilization of medical services. Graham, in examining the relationship between socio-economic status and the use of medical services, points

out that the lower classes have a high proportion of illness, and also a low utilization of physician and hospital services.[57] He states:

> A survey of past studies on the subject (of socio-economic status and illness) generally reveals that the greatest amount of illness is found amongst those socio-economic classes which are least able to pay for it.[58]

Suchman also discusses the relationship between social class and the health status and utilization of facilities. He states:

> Socio-economic status constitutes one of the most important sources of social and medical differentiation in the Unites States. Almost all studies have shown that upper and lower social classes, however defined, have different values and norms and vary in both their health status and utilization of health facilities.[59]

Lombard, likewise, reports that not only is the highest rate of illness found among the lower socio-economic classes, but also persons of this class have the lowest rates of utilization of selected medical services.[60] Other earlier studies also report high illness episodes among the lower socio-economic group.[61-67] That the poor are afflicted with more illnesses than the rest of the population is also indicated by more recent studies. Recent figures show that the rate of persons with limitations of activity due to chronic illness is about three times higher among those with annual incomes of less than $3,000 than those who have incomes of $10,000 and above.[68] Another study showed that "the annual rates of days per person of restricted activity, bed stay, and time lost from work were markedly greater for persons whose family income was less than $4,000 a year than for higher income groups. In general, as income rose, the rate of disability decreased."[69] It was also found that "among persons in the labor force, the number of days per person per year of restricted activity and bed disability were

substantially greater for currently unemployed persons than for currently employed persons."[70] It is no wonder then that "the sick get poorer and the poor get sicker."

That the utilization of medical services is positively related to the socio-economic status is demonstrated by other studies. According to a national study, approximately 59 per cent of the persons with family income under $2,000 had one or more physician visits during the year prior to the interview, whereas 72.8 per cent of the persons with family income of $10,000 and over did so.[71] Over three per cent (3.5%) of the persons with family income under $2,000 reported never having seen a physician. However, as the income rose, the percentage reporting "never" declined.[72] Also, as the education level rose the proportion of persons with at least one visit to the physician within a year of the interview also increased.[73] Another study showed that approximately 36 per cent of the families with incomes under $3,000 had never seen a physician during the fiscal year 1966-7.[74] Another survey showed that the average estimated number of visits to a physician per person per year among those with family incomes of less than $2,000 was 4.6, while among those with incomes of $7,000 or more the average was 5.7.[75] The Committee on the Cost of Medical Care found that among high income groups one out of four persons had a physical examination during the survey year, but among the low income families only one out of ten had been examined.[76]

Similar findings are reported by various other national, local and regional studies. Lerner and Anderson and Somers and Somers report that the higher socio-economic groups are more likely than low socio-economic groups to obtain medical, dental and hospital services.[77-78]

Andersen and Anderson report that those with high incomes are more likely than those with low incomes to respond to a symptom by seeing a doctor, and more likely to have had a recent medical examination, are more like to use a specialist's services and are more likely to have routine-preventive care.[79] Ross, from a recent study, reports that "as income, education and occupation rise, there is a corresponding rise in the amount of medical care received."[80] He found that lower class people seek medical care (when they do so at all) for a "felt" complaint.[81] In conclusion, Ross reports that the use of "preventive care" is positively related to social class status. Upper class families are more likely to seek "preventive care" whereas lower class families are more likely to seek "symptomatic care."[82] Other studies show the relationship between socio-economic status and the use of health services. Rosenstock indicated that preventive and detection services are used most by those who are relatively better educated and have higher incomes.[83] Graham reports that the lower the occupational status the less frequent are the visits to a physician.[84] Lowery, et al., in a study of rural families found that the lower the occupational rank the lower the utilization of services.[85] They further report a positive relationship between educational and income levels and the use of medical services. Kwass,[86] Myers and Roberts,[87] and White[88] have all indicated a positive relationship between an individual's social class position and his utilization of medical-care services. A 1964 study indicates that the proportion of people who receive no medical is three times as high for families with incomes under $2,000 as for families with incomes over $7,000.[89] The families with under $2,000 income had fewer hospital visits; only one-third of the low income families had medical insurance

as compared to seven-eights of the families with incomes over $7,000; and only 40 per cent of these families had insurance-paid hospital bills as compared to 81 per cent of families with incomes over $7,000.

Suchman, in describing the relationship between socio-economic status and medical-care utilization, reports that the higher one's socio-economic status, the more likely one is to have periodic health checkups, polio immunization, eye examinations, dental checkups and health insurance.[90] Financial considerations become a powerful determinant when one has to pay for health examinations and the proportion of persons going to a doctor solely for health examination declines.[91-92]

It seems reasonable to state that where substantial cost is involved, those with better financial resources are more likely to use services than those in poor financial condition. While due to this factor, there are consistent income-related differences in the use of health services in the Unites States, such differences are less pronounced in the United Kingdom, where health care is available under the National Health Service.[93]

Financial considerations play an important role in one's decision initially to seek medical assistance. A nation-wide survey reports that 30 per cent of the respondents "put off" medical care because they were unable to afford it.[94] Another study conducted in 1961 reports that 55 per cent of the families with incomes under $5,000 put off seeing a doctor because of cost.[95] A survey of nurses reveals that of all those who reported that some member of their family was failing to receive medical care, 66 per cent responded they could not afford it.[96] Horton and Leslie cite various statistics to indicate that low income families need more medical care but are unable to obtain

it primarily because of economic reasons.[97] Muller also reports that the low income families "put off" seeking medical care due to economic reasons.[98] Even in the presence of a symptom, 50 per cent of the low income families consulted a physician, while 75 per cent of the families with high incomes did so.

Bugbee lists two factors in the medical care system which directly affect those with low incomes.[99] First is the failure of the present medical care system to make available all the benefits of medical science to those least able to afford it. Often the poor are unable to make use of the present medical system and as a result receive a fraction of services needed. Second, the medical care low income families receive is often of lower quality. Bugbee has this to say: "The difference between the level of care for this substantial, if diminishing, segment of our population represents important unfinished business."[100]

The persons from the low socio-economic stratum are also less likely to possess "sophisticated" knowledge and information about symptoms and sickness and more likely to respond to symptoms from a different cultural perspective. Lower-class persons are less likely than those in a higher social stratum to recognize the symptoms of major illness, to use routine preventive care, but are more likely to hold irrational views about health, rely upon folk medicine, and postpone or delay seeking medical care.[101-102] Koos' study showed that the lower-class (Class III) respondents were less likely than Class I and Class II respondents to be sensitive to various symptoms and to consider that these symptoms required the attention of a physician.[103] Simmons noted that the lower-class families have less

extensive knowledge of modern medicine. He states:

> Lower class families are characteristic of greater economic insecurity than high income families and show less extensive knowledge pertaining to modern medicine than do higher status people . . .[104]

Low income families tend to be less "skilled" in the use of professional medical services.[105-106] Zborowski indicates that more educated patients are more conscious of their health and are more aware of pain as a possible symptom of a serious disease.[107]

Studies indicate that education level is related in several different ways to the use of health-care services. Pratt, et al., report that the degree of accurate information concerning the nature of an illness and its treatment is positively related to educational level.[108] Cobb maintains that educational level is related to attitude toward the physician.[109] Anderson and Rosen indicate that the utilization of complex modern medical services calls for a "medically sophisticated population" possessing the knowledge and understanding most likely to be lacking in less educated segments of the society.[110]

The studies discussed so far show the relationship between socio-economic status and utilization of health services. The studies show a positive relationship between educational and occupational level and the use of services. There is no question that the monetary cost is a significant barrier to seeking care among those who have limited economic means. The differential utilization of dental and medical services by socio-economic status disappears in large part, when medical services are made available to those lower on the socio-economic ladder. Socio-economic differences in the utilization of

health services comparable to those found in the U.S. do not exist in Great Britain, where services are provided under the National Health Service.[111-112]

One's decision to seek help and the form of help one seeks, may also depend upon the availability of and accessibility to treatment resources. There is a disproportionate distribution of resources between rural and urban areas. The rural areas are lacking in supply of both health personnel and medical facilities.[113]

We have also noted that the differential use of health services is related to cultural and ethnic differences, orientations toward health and sickness. Those from the lower-class are less likely to possess "sophisticated" knowledge and information about symptoms and sickness and are less likely than those in the higher social stratum to recognize the symptoms of illnesses or to use preventive care, but are more likely to hold irrational views about health, rely upon folk medicine and postpone or delay seeking professional assistance. The differences in beliefs about illness among the various social classes are more pronounced regarding psychiatric disorders.[114-115] The lower-class people are more likely than upper class to use home remedies and patent medicines and postpone seeking professional assistance.[116-118] However, it is difficult to ascertain which factors lead to delay in treatment: definition of symptoms, knowledge, monetary cost, or availability of and accessibility to health services.[119-124] The literature also suggests that working-class persons feel more uncomfortable in dealing with professionals who have high status and different values and orientations.[125-128]

Review of other studies show that socio-economic status is also related to immunizations and dental care. Studies of the polio vaccination program show that those accepting the vaccine have more

education, income, and come from higher social classes.[129-136]

Socio-economic status is also positively related to the use of dental care. While nearly everyone seems to have some type of dental problem and contemporary professional dental standards call for semi-annual examinations, available data show that less than one-half of the population in this country receives dental care in a given year. A U.S. National Health Survey shows that 42 per cent of the civilian, noninstitutional population, made one or more dental visits within the year prior to the interview and approximately 16 per cent of the population had never seen a dentist. In all age groups, females were more likely than males to have visited a dentist within the year prior to the interview.[137] The data showed a strong relationship between both education and income and dental care patterns.

> The percentage of persons with one or more dental visits within the year rose sharply with increasing income and increasing education and, correspondingly, the proportion who had never seen a dentist decreased as the amount of education and income advances. Cross-classification of income and education illustrates the independent relationship of each variable to the recency of dental care.[138]

Approximately 64 per cent of those with family income of $10,000 and over, and 22.7 per cent of those with family income under $2,000, visited a dentist within the year prior to the interview. Almost 62.6 per cent of those with education 13 years and more and 18.5 per cent with education under 5 years, saw a dentist within the year prior to the interview.[139] Similar findings are reported by other national surveys,[140-142] and by Anderson and Feldman,[143] and Pelton.[144] Andersen and Anderson report that "the percentage of persons seeing a dentist rises consistently with increasing family

income, from a low of 16 per cent for those with incomes of less than $2,000 to 58 per cent for those having incomes of $10,000 or more."[145] Anderson and Feldman,[146] and Suchman and Rothman,[147] in their studies show a positive relationship between income and use of dental services. These findings are consistent with those of Muller.[148] Approximately 22 per cent of the families with incomes under $2,000 visited a dentist during the survey year while 57.7 per cent of the families with incomes of $7,000 and above saw a dentist during the same period. Muller also reports that income is positively related to routine dental visits for cleaning and examination of teeth (high income families 21.8 per cent, low income families 12.2 per cent), and the rate of dental extractions is four times higher for low-income families than for high-income families. Muller's findings show that the low-income families as compared to high income families are less likely to participate in preventive dental care, such as regular visits for checkups, cleaning and x-rays and more likely not to visit the dentist at all. Kriesberg and Treiman from their study report that 69 per cent of those with incomes of $7,000 and above and 31 per cent of those with incomes under $2,000 visited a dentist.[149]

We noticed above that the rate of dental extractions is four times higher for low income families than for high income families. Other studies have also reported that dental extractions are proportionately higher for individuals in the lower socio-economic classes.[150-151]

In addition to income, education is also positively related to the u zation of dental services. Thirty-four per cent of those who had eight years or less of education, 58 per cent of those with some high school education, and 74 per cent of those with college education

had been to the dentist within one year of the survey.[152] Kreisberg and Treiman also report that one of the most important factors precipitating a visit to the dentist was "condition" of the teeth. When asked what precipitated the visit to the dentist, one-third of the respondents replied "pain," and one-third replied that "other dental problems" motivated them to seek dental treatment. Only 30 per cent indicated that the dental visit was a routine checkup. The authors state that ". . .many persons of higher status go to the dentist preventively, (and) many persons of lower status do not go to the dentist even when they think they need dental care."[153]

Data on preventive dental health care show a positive relationship between occupational status and use of dental services. Nikias reports that the higher the occupational status the higher the rate of persons receiving dental care in an average year. For instance, semi and unskilled workers visited a dentist at the rate of 27 persons per 100 persons, clerical workers at the rate of 45 and professionals at the rate of 58.[154] He reports that "the higher the occupational level, the greater was the number of persons who sought any care and the number of visits made and services received."[155]

That a positive relationship exists between socio-economic status (education, income, occupation) and use of dental services is substantiated by other studies.[156-166]

The findings on maternal-infant care show a strong positive relationship between socio-economic status and the utilization and adequacy of medical services. This is despite the observation that such care is of paramount importance. Andersen and Anderson state that "one of the cornerstones of preventive medicine is health services

for expectant mothers before, during and shortly after delivery. Optimum obstetrical care requires that the patients see the physician early and regularly."[167] Their own findings show that the proportion of mothers from upper income and education groups who saw a doctor early in pregnancy is substantially greater than the proportion of mothers from lower income and education groups. For instance, 58 per cent of the mothers with low incomes (under $4,000) saw a doctor in the first trimester of pregnancy as compared to 86 per cent of the middle income mothers ($4,000-$7,000) and 88 per cent of upper income mothers ($7,000 and above). Considering education, 68 per cent of the mothers with eight years or less of education saw a physician during the first trimester of pregnancy while 88 per cent of mothers with college education saw a doctor during this time period. Women with higher education and income not only went to the doctor earlier, but also saw him more frequently in each time period.[168]

Brightman, et al., report that 46 per cent of the mothers on Public Assistance (Accepting Aid to Dependent Children), received a prenatal examination during the first three months of pregnancy while 91 per cent of the higher income mothers and 72 per cent of mothers living in low income housing received this care.[169] Approximately one-fifth of the Public Assistance mothers did not receive maternal care until the sixth month of pregnancy and they also had fewer visits to the doctor.

Women from the upper classes see the physician early for prenatal care, see the physician more frequently, are more likely to receive postpartum care, and are likely to be under a specialist's care than a general practitioner.[170-175]

The review of literature presented above show that lower socio-economic groups have not only a high proportion of illness episodes, activity-limiting symptoms, low life expectancy, high maternal and infant mortality, but also, a low utilization of medical services and facilities. A large number of studies also show that various indicators of socio-economic status are positively related to the use of physician's services, preventive care, dental care and services, and maternal-infant care. These findings are even more relevant to the American Indians, as this segment of the population is both economically deprived and live in impoverished physical surroundings. According to a U.S. Public Health Service Publication the average American Indian family of five or six lives in a one or two room dwelling without running water or waste disposal facilities on $1,900 a year.[176] Another publication on the economic level of the American Indian population reports:

> An economic index was derived from a composite of the following characteristics: the number of persons per room in the residence, presence of electricity, refrigerator, source of drinking water, type of toilet facilities and means of transportation. Six economic levels, ranging from high to low were developed from this index. The group called 'high' is still low in terms of the economic level of the United States population as a whole.[177]

Our own data on the socio-economic status of the sample families show that approximately three-fourths of the families had annual income of $3,000 or less, about one-third of the husbands were unemployed, of those who were employed most held low status jobs and a majority of both husbands and wives had a low level of education.[178]

The American Indians also have low health status. Their health status is far below that of the U. S. general population.[179]

They have high infant mortality and low life expectancy and the morbidity from common infectious diseases is high among the Indian population.[180] The findings also show that due to impoverished living conditions this population has numerous infectious diseases.[181]

Because of these impoverished economic conditions the American Indians are less likely to obtain medical care, unless such services are provided by Federal or State agencies.[182] However, the utilization of health services may also depend upon such factors as illness episodes, availability of and accessibility to services and attitudes toward personal health and health care. The attitudes of American Indians toward personal health and "western medicine" have been subject of much discussion. Their health beliefs and their attitudes toward personal health and modern medicine , it is maintained, interfere with their acceptance and use of modern health care services and facilities.[183] However, our own findings show that a majority of the respondents from two Indian communities recognize the importance and desirability of routine preventive health care. However, the desirability of preventive dental care and health checkups is more widely accepted by these families than routine preventive visits to a physician.[184]

In summary, American Indians in general are both economically deprived and live in impoverished physical and sanitary conditions. Maine Indians are no exception. The health status of the Indians is far below that of the U.S. general population, and they have high infant mortality, low life expectancy, high morbidity and have numerous infectious diseases due to impoverished living conditions.

Summary

Theoretical orientations may be classified in broad general terms into two categories, namely socio-cultural and socio-psychological. In the former the emphasis is primarily on the role of ethnic and cultural differences in health and illness behavior patterns. The latter approach is concerned more with socio-psychological variables and their affect on decision-making processes both in the definition of the problem (realization of being sick) and the decision to seek help. The role of economic factors (one's ability to procure services) is implicit in these discussions, but is less clearly recognized.

A review of empirical studies shows cultural and ethnic differences in health and illness behavior and the use of health services. Studies also show a positive relationship between various indicators of socio-economic status and the use of health services and facilities. These findings are even more relevant to the American Indians, as this segment of the population is both economically deprived and living in impoverished physical conditions. The health status of American Indians is far below that of the U.S. general population. They have high infant mortality, low life expectancy, high morbidity and have numerous infectious diseases because of their impoverished living conditions. The poor have not only more illness episodes and activity-limiting symptoms and conditions, but also a low level of utilization of health care. It appears that socio-economic status affects the use of health services both directly (i.e., one's ability to pay for services) and indirectly, as it is related to values and attitudes toward health, knowledge and information concerning disease, and the like.

FOOTNOTES CHAPTER II

[1]For an extend review of theoretical and empirical literature see also other publications of Maine's Regional Medical Program Research and Evaluation Service: Robert A. Bendiksen and Bhopinder S. Bolaria, Social Correlates of Expected Solutions to Selected Illness Symptoms of Children, July, 1970; Allen A. Spencer and Bhopinder S. Bolaria, Social Correlates of the Utilization of Medical Services, July 1970; Suzanne M. Selig and Bhopinder S. Bolaria, Attitudinal and Social Correlates of Health and Sickness Behavior of American Indians in the State of Maine, August 1970; George A. Heming and Bhopinder S. Bolaria, Social Correlates of the Utilization of Selected Health-Care Services: A Study of Fifteen Communities, August 1970.

[2]Stanislav V. Kasl and Sidney Cobb, "Health Behavior, Illness Behavior, and Sick-Role Behavior," Archives of Environmental Health, Vol. 12 (February 1966) -- 246-266 and Vol. 12 (April 1966) pp 531-541 p. 246.

[3]Ibid., p. 249.

[4]Ibid.

[5]Ibid.

[6]Ibid., p. 540.

[7]Stanley H. King, Perceptions of Illness and Medical Practice (New York: Russell Sage Foundation) 1962.

[8]David Mechanic, "The Concept of Illness Behavior" Journal of Chronic Diseases, Vol. 15 (Feb. 1962) pp. 189-194; and "Some Implications of Illness Behavior for Medical Sampling," New England Journal of Medicine, 269 (August 1963) pp. 244-247.

[9]Irwin M. Rosenstock, "Why People Use Health Services," Milbank Memorial Fund Quarterly, 44 (July, 1966) pp. 94-127; pp99-101.

[10]Ibid., p. 98.

[11]Ibid., p. 119.

[12]I. Zola, "Illness Behavior of the Working Class: Implications and Recommentations," in A. Shostak and W. Gomberg (eds.) Blue Collar World: Studies of the American Worker (Englewood Cliffs: Prentice Hall) 1964, pp. 350-361.

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CHAPTER III

HEALTH, ILLNESS EPISODES AND HEALTH CARE: ADULTS

The use of health-care services depends upon several factors, such as illness episodes, availability of medical care, attitudes toward health and one's ability to procure medical services. Most of the data available in this area show that health-services utilization is directly related to socio-economic (income, education and occupation) status. The lower socio-economic groups are less likely than high socio-economic groups to utilize medical services and facilities. Not only is there low utilization of medical services and facilities by the lower classes, but there is also high morbidity and mortality among the lower classes. The studies show that a high proportion of persons from low income families have chronic conditions with limitation of activities, have almost double the days of restricted activity per year as compared to those with high incomes, have a larger proportion of multiple hospital episodes, low life expectancy and high maternal and infant mortality. Socio-economic status is positively related to the use of physician's services, dentist's care, maternal care, and routine preventive care.

These findings are even more relevant to the American Indians, as this segment of the population is both economically deprived and lives in impoverished physical and sanitary conditions. The general health status of the Indians is far below that of the U. S. general population. They have high infant mortality, low life expectancy, high morbidity and numerous infectious diseases due to impoverished physical and sanitary conditions.

In this chapter, the empirical findings from the present study are presented for the adult sample. The data are reported on current family health or medical problems; paralysis and other activity limiting symptoms or conditions; physician and hospital services; routine preventive care; solutions to selected illness symptoms of adults; use of home remedies; dental care and services; anticipated use, preference and acceptibility of services, and family's health practices.

Family Health and Medical Problems

One of the objectives of this study was to determine the health care needs of the families living in these two Indian communities. Approximately 79 per cent of the families had various health or medical problems for which they needed immediate help.[1]

That these families have numerous health and medical problems is evident from the data presented in Table 13. Approximately 62 per cent currently need dental care. Other most frequently reported health and medical problems are: 47.1 per cent toilet facilities, 25.7 per cent skin conditions, 14.3 per cent heat and about 13 per cent clothing. It is apparent that families have many health problems.[2]

In addition to medical problems (dental care, chronic medical conditions, skin conditions, sickness), it should be noted that these families live in rather inadequate physical and sanitary conditions. As our findings show, inadequate heat, water supply, toilet facilities and clothing are among the major problems of these families. Consequently, to alleviate their medical problems, one

must also pay attention to their living conditions, as their medical problems are related to and perhaps a result of their impoverished physical surroundings.[3]

Physical Disabilities, Paralysis, and Limitation of Activity and Mobility

The poor are afflicted with more illnesses than the rest of the population. Recent findings show that those from the lower income group have a higher proportion of activity-limiting conditions than those from high income groups.[4]

In the present study data were collected on activity-limiting symptoms and conditions, physical disabilities, and partial or complete paralysis. The questions were asked specifically for husband and wife.

The respondent was asked if it is difficult for him/her and his/her spouse to "get around" due to the following symptoms: chest pain, shoulder or arm pain; palpitations (rapid heart beating); severe shortness of breath; swelling of feet or ankles; blueness of lips or fingernails; and painful or swollen joints. The findings reported in Table 14 show that for 44.1 per cent of the husbands and 39.7 per cent of the wives it is difficult to "get around" due to these conditions. In other words, a substantial number of husbands and wives have limitation of daily activities.

The data on specific conditions are presented in Table 15. It is evident that both the husbands and wives have a multiplicity of these symptoms and conditions. In the case of husbands the most frequently (42.3 per cent) reported symptom/conditions are chest pains, shoulder or arm pains and the least frequently reported

TABLE 13

DISTRIBUTION OF SPECIFIC FAMILY HEALTH OR MEDICAL PROBLEMS REQUIRING IMMEDIATE HELP

(Families reporting health or medical problems, N = 70)

Specific Family Health Problems	Frequency	Per cent	N
Dental care	43	61.4	70
Toilet facilities	33	47.1	70
Skin conditions	18	25.7	70
Water supply	10	14.3	70
Chronic medical conditions	10	14.3	70
Heat	10	14.3	70
Clothing	9	12.9	70
Diet and food preparation	6	8.6	70
Sick child	6	8.6	70
Sick wife	5	7.1	70
Family planning	2	2.9	70
Alcholism	2	2.9	70
Sick husband	1	1.4	70
Sick other adult	1	1.4	70
Ear condition	1	1.4	70
Color blindness	1	1.4	70
Child underweight	1	1.4	70
Drainage problem with sewage	1	1.4	70

TABLE 14

LIMITATION OF MOBILITY DUE TO VARIOUS CONDITIONS AND SYMPTOMS BY HUSBAND AND WIFE

Do any symptoms or conditions make it difficult to get around?	Husband F	Husband %	Wife F	Wife %
Yes	26	44.1	31	39.7
No	32	54.2	46	59.0
No information	1	1.7	1	1.3
Total	59	100.0	78	100.0

TABLE 15

DISTRIBUTION OF SPECIFIC ACTIVITY-LIMITING SYMPTOMS AND CONDITIONS BY HUSBAND AND WIFE

Specific Symptoms and Conditions	Husband F	Husband %	Husband N	Wife F	Wife %	Wife N
Chest pain, shoulder or arm pains	11	42.3	26	17	54.8	31
Palpitations (rapid heart beating)	7	26.9	26	10	32.3	31
Severe shortness of breath	10	38.5	26	14	45.2	31
Severe indigestion	9	34.6	26	14	45.2	31
Swelling of feet or ankles	10	38.5	26	9	29.0	31
Blueness of lips or fingernails	1	3.8	26	2	6.5	31
Painful or swollen joints	10	38.5	26	11	35.5	31

TABLE 16

SPECIFIC CARDIOVASCULAR-RENAL AND RELATED ILLNESSES BY HUSBAND AND WIFE

Specific Illnesses	Husband F	Husband %	Husband N	Wife F	Wife %	Wife N
Diabetes	4	20.0	20	3	10.3	29
High blood pressure	12	60.0	20	18	62.1	29
Kidney disease	6	30.0	20	6	20.7	29
Rheumatic fever	1	5.0	20	1	3.4	29
Circulation (blood) problems	6	30.0	20	6	20.6	29

(only one case) symptoms are blueness of lips or fingernails. Approximately one-third or more of the husbands (34-38 per cent) have severe shortness of breath, severe indigestion, swelling of feet or ankles, and painful or swollen joints, and a little under 27 per cent reported palpitations.

In the case of wives, 54.8 per cent reported chest pain, shoulder or arm pain, 45.2 per cent severe shortness of breath and severe indigestion, and 29-32 per cent swelling of feet or ankles and palpitations. The least frequently reported symptoms are blueness of lips or fingernails.

In addition to activity-limiting symptoms and conditions, 33.9 per cent of the husbands and 37.2 per cent of the wives have cardiovascular-renal and related illnesses.[5] Table 16 shows that the most common illnesses are high blood pressure, kidney disease, diabetes and blood circulation problems.

The respondents were further asked if they and their spouse presently (at the time of the study) have any physical disabilities. Table 17 shows that almost one-third of the husbands and about 17 per cent of the wives have physical disabilities.[6] Additional data reported in Table 18 show that a little under 74 per cent of the husbands and 46.2 per cent of the wives were being treated for disability, a majority of them have been hospitalized or have been to a hospital or clinic, and a majority of them know whom to contact for help or rehabilitation. However, it must be noted that 79 per cent of the husbands and over 69 per cent of the wives need medical help for their conditions.

A little over 47 per cent of the husbands and 30.8 per cent of the wives feel that with some training they could return to

TABLE 17

CURRENT PHYSICAL DISABILITIES BY HUSBAND AND WIFE

Current Physical Disabilities	Husband		Wife	
	F	%	F	%
Yes	19	32.2	13	16.7
No	40	67.8	64	82.0
No information	--	----	1	1.3
Total	59	100.0	78	100.0

TABLE 18

RESPONSES TO SPECIFIC QUESTIONS CONCERNING DISABILITY

Specific Questions	Husband			Wife		
	F	%	N	F	%	N
Presently being treated for disability	14	73.9	19	6	46.2	13
Has been hospitalized or been to a hospital or clinic for disability	10	52.6	19	8	61.5	13
Needs medical help now	15	79.0	19	9	69.2	13
Knows whom to contact in order to get help for rehabilitation	15	79.0	19	7	53.9	13
Feels that with some training could return to work or fairly normal activity	9	47.4	19	4	30.8	13
Is now receiving financial support from a state agency	14	73.9	19	6	46.2	13
Is now receiving city or town financial aid	0	0.0	19	1	7.7	13
Is now receiving Social Security benefits	6	31.6	19	1	7.7	13
Not receiving any of the above forms of financial support, but have applied for them	6	31.6	19	3	23.1	13

work or fairly normal activity. Their primairy sources of financial support are State agencies or Social Security benefits.

The respondents were also asked if they themselves or their spouses ever had partial or complete paralysis of one side of the body. A little over three per cent of the husbands and 12.8 per cent of the wives reported that they have had paralysis (Table 19). The data reported in Table 20 show both husbands and wives have a multiplicity of paralysis related symptoms and conditions.

Responses to a specific question concerning whether they have ever had cancer, heart disease and heart attack show that 3-8 per cent of the wives and husbands have had these illnesses. (Table 21)

The data presented so far show that these families have numerous health and medical problems and that the adults have numerous of activity-limiting symptoms and conditions, cardiovascular-renal and related illness, and physical disabilities.

One should be somewhat cautious about these findings. As the questions dealt with related symptoms and conditions and covered both present and past illnesses, there might be some overlapping of responses to these questions. For instance, approximately 14 per cent of the families indicate that they have chronic medical conditions (under family health and medical problems). Some of these respondents may be referring to the conditions reported later concerning activity-limiting symptoms and conditions, and the other responses concerning cardiovascular-renal conditions, and related diseases, physical disabilities, paralysis and other ill episodes. This overlapping is more likely to occur on questions on activity-limiting conditions and disability. Even given this possible over-

TABLE 19

PARTIAL OR COMPLETE ANALYSIS OF ONE SIDE OF THE BODY
BY HUSBAND AND WIFE

Have had partial or complete paralysis	Husband		Wife	
	F	%	F	%
Yes	2	3.4	10	12.8
No	57	96.6	68	87.2
Total	59	100.0	78	100.0

77

TABLE 20

SYMPTOMS AND CONDITIONS RELATED TO PARALYSIS

Symptoms and Conditions	Husband			Wife		
	F	%	N	F	%	N
Numbness or tingling	2	100.0	2	6	60.0	10
Feeling of being off-balance	2	100.0	2	4	40.0	10
Unsteadiness of walk	2	100.0	2	4	40.0	10
Headache	1	50.0	2	3	30.0	10
Confusion about where you were or what was happening	2	100.0	2	-	----	10
Noise in the ears	1	50.0	2	2	20.0	10
Unconscious at any time	1	50.0	2	1	10.0	10
Difficulty in talking	1	50.0	2	-	----	10
Difficulty in understanding words	1	50.0	2	1	10.0	10
Difficulty is swallowing	1	50.0	2	1	10.0	10
Dimming or blurring of vision	-	----	2	1	10.0	10
Dizziness or nausea	-	----	2	1	10.0	10

TABLE 21

INCIDENCE OF STROKE, CANCER, HEART DISEASE AND HEART ATTACK BY HUSBAND AND WIFE

Disease	Husband					Wife				
	Yes		No			Yes		No		
	F	%	F	%	N	F	%	F	%	N
Stroke	2	3.4	57	96.6	59	2	2.6	76	97.4	78
Cancer	-	0.0	59	100.0	59	2	2.6	76	97.4	78
Heart disease	5	8.5	54	91.5	59	5	6.4	73	93.6	78
Heart attack	4	6.8	55	93.2	59	1	1.3	77	98.7	78

TABLE 22

SAMPLE POPULATION WITH A FAMILY DOCTOR

N = 90

Do you have a family doctor?	Frequency	Per cent
Yes	86	85.6
No	4	4.4
Total	90	100.0

lapping of responses, that is, one illness episode reported more than once, it remains apparent that these families are afflicted with many chronic illnesses and have many activity-limiting symptoms and conditions. These illness episodes take on added significance when they interfere with adults' daily activities and even with their employment. Consequently, adults might be unable to assume "gainful" and steady employment due to these illnesses, and are destined to stay in perpetual poverty conditions. Under these conditions they have to depend upon State, Federal and other assistance both for their medical care and livelihood.

Physician and Hospital Services: Accessibility and Availability

One of the objectives of the present study was to determine availability of and accessibility to various health services and facilities by the American Indian families. One such area of study was that of physician and hospital services.

Table 22 shows that almost 86 per cent of the families have a "family doctor." However, when asked about general accessibility to a physician, a little over one-third of the respondents indicated that it is difficult for their families to see a physician (Table 23). Those who reported lack of access to a physician were asked to indicate reasons for it. As Table 24 shows the respondents indicate multiple reasons. The most frequent reason , 61.3 per cent, was lack of transportation. The second most frequently endorsed reason, 19.4 per cent, was non-availability of the physician-cannot get appointments, followed by inability to pay the doctor and inconvenient doctor's office hours. Only two respondents mentioned the

TABLE 23

GENERAL ACCESSIBILITY TO A PHYSICIAN

N = 90

Is it difficult for your family to see a doctor?	Frequency	Per cent
Yes	31	34.4
No	59	65.6
Total	90	100.0

TABLE 24

DISTRIBUTION OF REASONS FOR LACK OF ACCESSIBILITY TO A PHYSICIAN

(Families reporting having difficulty in seeing a physician, N = 31)

Reasons	Frequency	Per cent	N
No transportation	19	61.3	31
Cannot get appointments	6	19.4	31
Unable to pay the doctor	5	16.1	31
Doctor's office hours inconvenient	5	16.1	31
Afraid doctor might find something seriously wrong with me	2	6.5	31
No emergency or night doctor	1	3.2	31
Doctor won't always come when needed	1	3.2	31
Too busy--don't have time	1	3.2	31
No one to accompany me	1	3.2	31

fear that the doctor might find something seriously wrong with them as a reason for not seeing a physician.

As noted above the most frequently mentioned reason for lack of access to a physician is transportation. In this context it should be pointed out that of those who have a family doctor, 4.7 per cent are less than 5 miles away from their family physician, 55.8 per cent 5-9 miles, and 4.7 per cent 10-14 miles. However, 34.8 per cent are 15 or more miles away from the family physician.[7]

Regarding the distance from the nearest doctor, 8.8 per cent are less than 5 miles away, 66.7 per cent 5-9 miles, and 5.6 per cent 10-14 miles. Almost 19 per cent reported that they are 15 or more miles away from the nearest physician.[8]

That these families have numerous "unmet" medical-care needs and lack access to a physician and hospital services is also evident from the other data collected during the interviews. For instance, responses to other questions show (Table 25) that 10 per cent of the respondents or spouses have had an ailment for which they did not receive a doctor's attention, and about 7 per cent of them have had an ailment which they thought required hospitalization but were not hospitalized.[9] Also, a little over 13 per cent of the respondents or their spouse did not receive medical attention even when advised by a physician, and about 7 per cent of them were not hospitalized even when a physician had advised them that they needed hospitalization.[10]

The primary reasons for not receiving medical attention and for not having been hospitalized are lack of transportation, unable to leave sick bed, cost of prescriptions, no one to take care of children, and would rather not go to a doctor.

TABLE 25

UNMET MEDICAL NEEDS: PHYSICIAN'S SERVICES AND HOSPITALIZATION BY RESPONDENT AND SPOUSE

Medical Attention and Hospitalization	Those responding affirmatively		
	Frequency	Per cent	N
Have you or your spouse ever had an ailment (in the past or presently) for which either of you did not receive a doctor's attention?	9	10.0	90
Have you or your spouse ever had an ailment (in the past or presently) for which either of you should have been hospitalized but were not?	6	6.7	90
Has a doctor ever told you or your spouse that either of you needed medical attention which you did not receive?	12	13.3	90
Has a doctor ever told you or your spouse that either of you needed hospitalization which you did not receive?	6	6.7	90

TABLE 26

LENGTH OF TIME SINCE MOST RECENT PHYSICAL EXAMINATION BY HUSBAND AND WIFE

Time Since Last Physical Examination	Husband		Wife	
	F	%	F	%
Within the last six months	20	36.4	36	46.2
Within the last year	17	30.8	17	21.7
Within the last five years	8	14.5	12	15.4
Within the last ten years	3	5.5	2	2.6
Over ten years ago	3	5.5	2	2.6
Never had a physical examination	4	7.3	9	11.5
Total	55[a]	100.0	78	100.0

[a]Four no information.

During the interviews great care was taken to differentiate between the self-appraised and professionally-appraised ailments. It is possible however, that some of the respondents might not have made such a distinction. Consequently, there might be some overlapping of ailments, that is, an ailment reported in the question on self-appraised ailments could also have been reported in the other questions (professionally-appraised ailments).

The data reported above show that lack of transportation, non-availability of the physician, financial considerations and inability to see the physician during his office hours are the primary reasons for inaccessibility to a physician, and to some extent for "unmet" medical-care needs.

Routine-Preventive Care

The use of medical services and facilities depends upon several factors, such as, illness episodes, availability of care, attitudes toward health and one's ability to procure such services. A substantial body of literature shows that the use of health services is positively related to various indicators of socio-economic status and that upper classes are more likely than lower classes to use preventive health-care. In this study data were collected on physical examinations, chest x-ray, electrocardiogram, cancer "pap" test and the general patterns of preventive checkups.

The data presented in Table 26 show that a majority of the husbands and wives had physical examinations within a year of the study. At the other extreme, a little over seven per cent of the husbands and 11.5 per cent of the wives have never had a physical

examination. In addition, 11 per cent of the husbands and 5.2 per cent of the wives had a physical examination over five years ago.[11]

It is recognized that fee-for-service system of medicine is not conducive to preventive health care. This system is likely to discourage low income groups more than high income groups to seek preventive health examinations. In this context, of particular importance is the data on reasons for most recent physical examination. The data show that a majority of the husbands and 43.3 per cent of the wives had physical examination for symptomatic rather than preventive care. (Table 27)

The data on health-screening tests show that most of the adults in our sample do not receive these tests, when these tests may be very important for early diagnosis and treatment.

Table 28 shows that a little over 19 per cent of the husbands and 20.5 per cent of the wives have never had a chest x-ray. In addition, 9.6 per cent of the husbands and 8.2 per cent of the wives had a chest x-ray five or more years ago.

Almost three-fourths (Table 29) of the husbands and wives, either have never had an electrocardiogram or had one over five years ago.

Table 30 shows that a little over 69 per cent of the wives have never had a cancer "pap" test.

To ascertain further the nature of general preventive care received by these families the respondents were asked: "Do you or your spouse have regular health checkups even when you are well?" Table 31 shows that 71.2 per cent of the husbands and 51.3

TABLE 27

DISTRIBUTION OF REASONS FOR MOST RECENT PHYSICAL-EXAMINATION BY HUSBAND AND WIFE

Reason for Most Recent Examination	Husband		Wife	
	F	%	F	%
Symptom of illness	25	52.1	29	43.3
Preventive	23	47.9	38	56.7
Total	48[a]	100.0	67[b]	100.0

[a]Three no information. [b]two no information

TABLE 28

LENGTH OF TIME SINCE MOST RECENT X-RAY BY HUSBAND AND WIFE

Time since last x-ray	Husband		Wife	
	F	%	F	%
During the year of the study (1969)	10	19 2	15	20.5
1 year ago (during 1968)	17	32.c	24	32.9
2 years ago (during 1967)	8	15.4	5	6.8
3 years ago (during 1966)	1	1.9	5	6.8
4 years ago (during 1965)	1	1.9	3	4.3
5 or more years ago	5	9.6	6	8.2
Never	10	19.2	15	20.5
Total	52[a]	100.0	73[b]	100.0

[a]Seven no information. [b]Five no information.

TABLE 29

LENGTH OF TIME SINCE MOST RECENT ELECTROCARDIOGRAM BY HUSBAND AND WIFE

Time since last Electrocardiogram	Husband		Wife	
	F	%	F	%
One year or less	9	15.3	18	23.1
Between 1 and 5 years	7	11.8	3	3.8
Over 5 years	5	8.5	1	1.3
Never	38	64.4	56	71.8
Total	59	100.0	78	100.0

TABLE 30

LENGTH OF TIME SINCE MOST RECENT CANCER "PAP" TEST BY WIFE

Time Since Last Cancer "Pap" Test	Frequency	Per cent
One year or less	11	14.1
Between 1 and 5 years	8	10.3
Over 5 years	1	1.3
At the time of last pregnancy	4	5.1
Never	54	69.2
Total	78	100.0

TABLE 31

GENERAL PATTERN OF REGULAR PREVENTIVE CHECKUPS BY HUSBAND AND WIFE

Do you and spouse have regular checkups?	Husband		Wife	
	F	%	F	%
Yes	17	28.8	38	48.7
No	42	71.2	40	51.3
Total	59	100.0	78	100.0

per cent of the wives do not receive regular preventive checkups. The primary reasons given for not receiving preventive checkups are: no transportation, only go to the physician for symptomatic care (don't go unless sick), insufficient funds, cannot get an appointment, no one to care for children, and feel don't need them.[12]

It must be noted here that our purpose is not to discuss the utility or lack thereof, of physical examination and other health-screening tests. Whether a person who receives regular checkups has better chances of early diagnosis and treatment as compared to a person who does not receive these checkups is a debatable issue. Our purpose here to report whether the sample population in this study receive preventive health care and health-screening tests or not. Our findings generally show that most of these families do not receive preventive care. One's decision to seek care is influenced by many factors. One of the factors which had received a great deal of attention particularly in relation to the poor is their attitudes toward personal health and medical care. The lower classes seem to be more skeptical of the value of routine preventive care, early consultation and treatment, and these attitudes subsequently may interfere with their receipt of medical care in time.[13] Other studies show that "positive" attitudes toward health and health-care may not be reflected in one's actual use of health-care services.[14] Other factors such as monetary cost and availability of and accessibility to medical facilities and services may be important considerations in the utilization of services.

The data presented earlier in this study showed that the respondents generally express "positive" attitudes toward routine-

preventive care and recognize the desirability and importance of routine visits to a physician, preventive dental care and preventive health checkups. However, the desirability of preventive dental care and health checkups is more widely accepted by these families than the routine visits to a physician.[15] The data presented above show that these families have a rather low utilization of preventive-care and health-screening tests primarily due to transportation difficulties, financial considerations and non-availability and inaccessibility to medical services and facilities. These factors prevent these families from obtaining these services even when they place a "positive" value on such services. The removal of these barriers may bring a closer correspondense between their attitudes (importance and desirability of preventive care) and their actions (actual utilization of such services).

Solutions to Specific Illness Symptoms/Conditions

We were also interested to know the respondents' views of "proper" behavior in the presence of particular symptoms. Each respondent was presented with a list of 19 symptoms and conditions ranging from more severe to most common ailments. For each of these symptoms the respondents were asked if they would (1)take the adult member to a hospital, (2)call a doctor for a house visit, (3)make appointment at a doctor's office, (4)consult doctor on the phone, (5) see a nurse, (6)use home remedies, (7)consult relatives or friends, and (8)just wait until it goes away. It must be noted that the respondent was asked what he would do, not what he should do.

Table 32 shows that in almost all the cases a substantial majority of the respondents are most likely to seek a physician's assistance. However, 79 per cent of the respondents for headache, and almost one-third in the case of any change in normal bowel habits and persistent indigestion, indicate that they would use home remedies and 10-17 per cent would use home remedies for any sore that does not heal, frequent fever, swelling of feet or ankles and persistent hoarseness or cough.

For further analysis, reactions to symptoms were classified into three categories, namely "medical," "non-medical" and "no-action." The "medical" category includes: take to a hospital, call a doctor for a house visit, visit a doctor's office, consult a doctor on the phone and see a nurse. The "non-medical" category includes: use of home remedies and consultation with relatives and friends, and in "no-action" category, just wait until it goes away. These data are reported in Table 33. It is apparent that in all cases except headache, a substantial proportion of the respondents would seek "medical" assistance than use home remedies, consult friends and relatives or take "no-action." It is also evident that they are least likely to take "no-action" in case of all these symptoms.

A high proportion of the respondents in our sample show the tendency to use professional assistance for a wide range of symptoms and conditions. However, visit to a doctor's office seems to be the most often mentioned reaction to these symptoms. They seem to place least confidence in nurses for such care in almost all cases. These findings appear to be inconsistent with the notion that American Indians are less sensitive to various symptoms and generally have "negative" attitudes toward professional care.

TABLE 32

EXPECTED SOLUTIONS TO SELECTED ILLNESS SYMPTOMS AND CONDITIONS (IN PER CENT)

Symptoms/Conditions	Take to Hospital	Call a Doctor for a House Visit	Make Appointment at Doctor's Office	Consult Doctor on the Phone	See a Nurse	Home Remedies	Consult Relatives, Friends	Wait Until it Goes Away	No Information	N
Any sore that does not heal	7.8	--	68.9	11.1	1.1	10.0	1.1	--	-	90
Vision problems	3.3	2.2	82.3	8.9	-	-	1.1	2.2	-	90
Blackouts--fainting	10.0	5.6	61.1	8.9	-	6.7	3.3	3.3	1.1	90
Chest pain	6.7	3.3	71.1	8.9	-	6.7	1.1	2.2	-	90
Excessive bleeding	22.2	2.2	58.9	5.6	1.1	6.7	1.1	1.1	1.1	90
Discharge	10.0	-	64.5	8.9	-	2.2	1.1	1.1	12.2	90
Frequent fever	3.3	2.2	64.5	12.2	-	15.6	1.1	1.1	-	90
Headache	1.1	-	13.3	2.2	2.2	79.0	-	2.2	-	90
Lower back pain	6.7	-	56.0	10.0	1.1	23.3	1.1	7.8	-	90
Shortness of breath	12.2	1.1	61.1	16.7	-	2.2	1.1	5.6	-	90
Swelling of feet or ankles	2.2	1.1	65.6	11.1	-	13.3	1.1	5.6	-	90
Persistent indigestion	3.3	-	56.7	6.7	1.1	32.3	-	-	-	90
Bluness of lips and fingernails	14.4	1.1	65.7	14.4	-	1.1	2.2	1.1	-	90
Palpitations	10.1	1.1	67.9	12.2	-	3.3	1.1	3.3	1.1	90
A lump or thickening in the breast or elsewhere	7.8	-	81.1	5.6	-	2.2	1.1	2.2	-	90
Any change in a wart or mole	2.2	1.1	76.7	7.8	-	8.9	1.1	2.2	-	90
Difficulty in swallowing	5.6	1.1	74.5	11.1	1.1	4.4	1.1	2.2	-	90
Persistent hoarseness or cough	3.3	-	71.1	6.7	-	16.7	1.1	1.1	-	90
Any change in normal bowel habits	3.3	-	54.5	6.7	1.1	33.3	1.1	-	-	90

TABLE 33

EXPECTED SOLUTIONS TO SELECTED ILLNESS SYMPTOMS AND CONDITIONS
(IN PER CENT)

Symptoms/ Conditions	Medical[a] Action	Non-Medical[b] Action	No[c] Action	No Information	N
Any sore that does not heal	88.9	11.1	--	--	90
Vision problems	96.7	1.1	2.2	--	90
Blackouts-fainting	85.6	10.0	3.3	1.1	90
Chest pain	90.0	7.8	2.2	--	90
Excessive bleeding	90.0	7.8	1.1	1.1	90
Discharge	83.4	3.3	1.1	12.2	90
Frequent fever	82.2	16.7	1.1	--	90
Headache	18.8	79.0	2.2	--	90
Lower back pain	67.8	24.4	7.8	--	90
Shortness of breath	91.1	3.3	5.6	--	90
Swelling of feet or ankles	80.0	14.4	5.6	--	90
Persistent indigestion	67.8	32.2	--	--	90
Blueness of lips or fingernails	95.6	3.3	1.1	--	90
Palpitations	91.2	4.4	3.3	1.1	90
A lump or thickening in the breast or elsewhere	94.5	3.3	2.2	--	90
A change in a wart or mole	87.8	10.0	2.2	--	90
Difficulty in swallowing	92.3	5.5	2.2	--	90
Persistent hoarseness or cough	81.1	17.8	1.1	--	90
Any change in normal bowel habits	65.6	34.4	--	--	90

[a]Medical action includes: take to hospital, call a doctor for house visit, visit doctor's office, consult doctor on phone, see a nurse.

[b]Non-medical action includes: use of home remedies and consult relatives, friends, etc.

[c]No action includes: just wait until it goes away.

Use of Home Remedies and Patent Medicines

The high cost of drugs, physician services, hospitalization and other costs often lead the poor people to use folk-medicines and remedies.[16] It has been noted that the medical chests of the poor are quite likely to contain many home remedies.[17]

The data from the present study show that these families have had a wide variety of home remedies and patent medicines (not prescribed by a doctor). The respondents were presented with a list of home remedies and medicines and were asked to indicate if they have and have used these remedies. Table 34 shows that about three-fourths of the families have antiseptics, about two-thirds have stomach settlers, cold remedies, and cough remedies, a majority of them have salves and ointments, and 45.6 per cent have liniments and vitamins. A little over one-third of the families, have eye drops and 11.1 per cent and 14.4 per cent have tonics and piles-hemorrhoid remedies, respectively.[18]

Further information was elicited from those who reported that did have various remedies and medicines. Our data show that a very high percentage (80-100 per cent) of those who have these remedies and medicines use them when needed.

It was noted earlier that the high cost of medical services often leads the poor to use home remedies. Our findings indicate that not only do many of the American Indian families have non-prescribed medicines, but also, a very high proportion of them use these non-prescribed medicines. The findings are consistent with Syvrud's study, which showed that low income older people reported more frequent use of folk medical practices and less utilization of

TABLE 34

USE OF HOME REMEDIES AND PATENT MEDICINE

Home Remedies and Patent Medicine	Respondents who have home remedies			Respondents who use home remedies		
	F	%	N	F	%	N
Salves, ointments	48	53.3	90	43	89.6	48
Tonics	10	11.1	90	8	80.0	10
Purgatives (laxatives)	52	57.8	90	50	96.2	52
Liniments	41	45.6	90	39	95.1	41
Antiseptics (iodine etc.)	68	75.6	90	65	95.6	68
Vitamins	41	45.6	90	40	97.6	41
Stomach settlers	57	63.3	90	55	96.5	57
Cold remedies	55	61.1	90	53	96.4	55
Cough remedies	56	62.2	90	55	98.2	56
Piles, hemorrhoid remedies	13	14.4	90	13	100.0	13
Eye drops	33	36.7	90	31	93.9	33

TABLE 35

SPECIFIC DENTAL PROBLEMS BY HUSBAND AND WIFE

(Those who had dental problems, husband = 45, wife = 70)

Dental Problems	Husband			Wife		
	F	%	N	F	%	N
Toothache	9	20.0	45	13	18.6	70
Cavities	19	42.2	45	33	47.1	70
Missing teeth	29	64.4	45	43	61.4	70
Generally bad teeth	15	33.3	45	23	32.9	70
Dentures	7	15.6	45	20	28.6	70

modern medical services and facilities.[19]

Dental Care and Service

While most people seem to have some type of dental problem and contemporary professional dental standards call for semi-annual examinations, available data show that less than one-half of the population in this country receives dental care in a given year. The data also show a positive relationship between various indicators of socio-economic status and the use of dental care and services. Low-income families have more dental problems and dental extractions. are proportionately higher for individuals in the lower socio-economic classes. Moreover, low income families are less likely than high income families to participate in preventive dental care.[20]

In the present study data were collected on dental problems, length of time since most recent visit to a dentist, reasons for most recent visit, if the respondents see a dentist when they think they should, reasons for not seeing a dentist and general pattern of visits to the dentist.

Our findings show that a very high proportion of husbands and wives report that they have some dental problems, 76.3 per cent and 89.9 per cent, respectively. Table 35 shows the distribution of specific dental problems reported by the families. Missing teeth and cavities are the most frequently reported problems. Almost one-third of the husbands and wives have "generally bad teeth" and about one-fifth toothaches. The data also show that approximately 29 per cent of the wives and 15.6 per cent of the husbands reported "dentures" among the dental problems.[21]

Table 36 shows that 28.3 per cent of the husbands and 35.2 per cent of the wives have not been to a dentist for the last five years. At the other extreme, 47.2 per cent of the husbands and 31 per cent of the wives did visit a dentist during the previous year. The remaining adults saw a dentist within 2-4 years prior to the interview.[22]

We noted earlier that low-income groups are more likely than high income groups to visit a dentist for symptomatic rather than preventive care. Table 37 shows that 84.6 per cent of the husbands and 90.1 per cent of the wives saw a dentist for symptomatic care. It is quite evident that only a few of the adults receive preventive dental care.

When the respondents were asked if they always see a dentist when they think they should, about one-third (Table 38) responded affirmatively. Those who do not see a dentist (when such a visit is considered desirable) indicated various reasons. Table 39 shows that non-availability (cannot get an appointment) of the dentist and lack of transportation are the reasons most frequently reported.[23] Approximately 19 per cent reported that they cannot pay the dentist, and 17.7 per cent dentist's office hours inconvenient.[24] A little over one-fifth of the respondents report "fear of getting hurt" as one of the reasons for not seeing a dentist.

Additional data show that husband and wife do not have any regular pattern of visits to a dentist. The respondents were asked: "How often do you and your spouse generally see a dentist?" Table 40 shows that 69.5 per cent of the husbands and 66.7 per cent of the wives see a dentist "only when absolutely necessary" and

TABLE 36

LENGTH OF TIME SINCE MOST RECENT VISIT TO A DENTIST BY HUSBAND AND WIFE

Time Since Last Visit	Husband		Wife	
	F	%	F	%
One year or less	25	47.2	22	31.0
2-3 years ago	8	15.1	19	26.8
4-5 years ago	4	7.5	5	7.0
Over 5 years ago	15	28.3	25	35.2
Never	1	1.9	--	---
Total	53[a]	100.0	71[b]	100.0

[a]Six no information. [b]Seven no information.

TABLE 37

DISTRIBUTION OF REASONS FOR MOST RECENT VISIT TO A DENTIST BY HUSBAND AND WIFE

(Those who have been to a dentist)

Reasons	Husband		Wife	
	F	%	F	%
Symptomatic (dental problems)	44	84.6	64	90.1
Preventive (routine dental checkups)	8	15.4	7	99.9
Total	52	100.0	71	100.0

TABLE 38

RESPONDENTS' VISITS TO A DENTIST WHEN REQUIRED

Do you always see a dentist when you think you should?	Frequency	Per cent
Yes	28	31.1
No	62	68.9
Total	90	100.0

TABLE 39

DISTRIBUTION OF REASONS FOR NOT SEEING A DENTIST

(Those who don't see a dentist when they think they should, N = 62)

Reasons	Frequency	Per cent	N
Cannot get an appointment	21	33.9	62
No transportation	19	30.6	62
Fear of getting hurt	14	22.6	62
Cannot pay	12	19.4	62
Dentist's office hours inconvenient	11	17.7	62
Others[a]	16	25.8	62

[a]Self treatment (4), don't like dentist (2), no dentist to go to (2), don't have time to go (1), shortage of dentists in the area (1), only one dentist around (2), not sure whom to contact (4).

TABLE 40

GENERAL PATTERN OF VISIT TO A DENTIST BY HUSBAND AND WIFE

General Pattern	Husband		Wife	
	F	%	F	%
Never	10	16.9	18	23.0
Only when absolutely necessary	41	69.5	52	66.7
Regularly (once a year or more)	8	13.6	8	10.3
Total	59	100.0	78	100.0

16.9 per cent of the husbands and 23 per cent of the wives "never." Only a few of them have a general regular pattern of visits to a dentist.

The findings reported above show a very high percentage of the husbands and wives have cavities, toothaches, missing teeth, dentures, and generally bad teeth; approximately one-third of them have not been to a dentist for five years; 84-90 per cent of them see a dentist (if they go at all) for symptomatic rather than preventive care. Approximately two-thirds of the respondents do not see a dentist when they consider such a visit desirable because they lack transportation or finances, fear getting hurt, or because the dentist is not available or has inconvenient office hours. Only a few of the husbands and wives have a general regular pattern of visits to a dentist.

The findings reported in Chapter I show that the respondents generally express "positive" attitudes toward preventive dental care and recognize the importance and desirability of regular preventive visits to a physician. However, the data reported above show that their "positive" attitudes toward preventive dental care are not reflected in their actual use of such services, primarily due to lack of transportation, financial considerations, fear of getting hurt, and non-availability of the dentist and respondents' inability to see a dentist during certain hours. These factors prevent these families from obtaining dental care and services, even when they consider such services as desirable or have immediate need for these services. The removal of these barriers may bring a closer correspondence between their attitudes (desirability of pre-

ventive dental care), their needs (numerous dental problems) and their actions (actual use of these services).

Anticipated Use, Preference and Acceptibility of Services

In this study data were also collected on respondents' attitudes and general receptivity to additional health services and facilities. These data may be useful in ascertaining the respondents' future behavior if they were asked to participate in new health-care programs and facilities.

A very high proportion of the families appear to be receptive to proposed services and facilities. Table 41 shows that a little over 94 per cent of the families would use a community health center or clinic, 87.8 per cent would participate in a "health-screening" program if the program were offered at no cost to them, and 86.7 per cent of the families would like help in finding out how to receive additional health services.

Additional data were collected on respondents' attitudes toward receiving health-information booklets. Table 42 shows that a little under 78 per cent would use booklets of first-aid, close to 69 per cent would use booklets on how to obtain medical care and assistance with health problems, and a little under 57 per cent on when to call a doctor. A majority of the families would use information booklets about minor illnesses in children and about one-third about baby care in general.

It appears from these data that these families consider information o first aid and how to obtain additional care and assistance more important than information in any other area. It may be that they do not attach the same importance to the information in

TABLE 41

RESPONDENTS' ATTITUDES TOWARD ADDITIONAL HEALTH SERVICES AND FACILITIES

Services and Facilities	Those who responded affirmatively		
	Frequency	Per cent	N
Would like help in finding out how you and your family can get additional health services?	78	86.7	90
Would you and your family use a community health center or clinic if available?	85	94.4	90
Would you and your family participate in a program designed to find out if you are sick or have some illnesses you are unaware of at no cost to you?	79	87.8	90

TABLE 42

POTENTIAL USE OF SELECTED HEALTH-INFORMATION BOOKLETS

Health-Information Booklets	Those who would use booklets		
	Frequency	Per cent	N
First aid	70	77.8	90
How to obtain medical care and assistance with health problems	62	68.9	90
When to call a doctor	51	56.7	90
Minor illnesses in children	46	51.1	90
Baby care	30	33.3	90

other areas and do not consider such information of much utility to them because the question of how to obtain medical care, assistance and first aid is at the forefront of their minds. This is not surprising when one considers the numerous illness episodes, health care needs and the general state of medical deprivation of these families.

The patients may be broadly classified as users of physicians, hospitals, clinics, specialists or emergency care. In this study we were interested to know the respondent's preference for health-care services. The respondents were asked: If you were free to choose, what kind of health care would you like to have for your family?" Table 43 shows that more of the respondents would prefer to have "one doctor treat the whole family for any illness" than "several specialists available to see each person depending upon the nature of illness" or "several doctors available for use, for example, one for children and another one for adults." The lowest percentage of the respondents' expressed preference for "several doctors available for use, for example, one for children another one for adults."

The data on types of medical services preferred for their children show (Table 44) that more of the respondents would prefer a doctor who is available in his office during his office hours than "a doctor who makes a house call to examine the children" or "a clinic where the equipment necessary for examination is available." The lowest percentage of the respondents expressed preference for a doctor who makes a house call to examine the children.

These findings indicate that if the respondents had free choice they would prefer one doctor to treat the whole family for

TABLE 43

TYPES OF MEDICAL SERVICES PREFERRED BY RESPONDENTS FOR THEIR FAMILIES

N = 90

Services	Frequency	Per cent
One doctor treat the whole family for any illness	47	52.2
Several doctors available for use, for example, one for children and another one for adults	18	20.0
Several specialists available to see each person depending upon the nature of the illness	23	25.6
No information	2	2.2
Total	90	100.0

TABLE 44

TYPES OF MEDICAL SERVICES PREFERRED BY RESPONDENTS FOR THEIR CHILDREN

N = 90

Services	Frequency	Per cent
The doctor who comes to your home to examine your child	13	14.4
The clinic where you have to take your child and where the equipment necessary for examination is available	30	33.3
The doctor you know you can find in his office during office hours	46	51.2
No information	1	1.1
Total	90	100.0

any illness and also a doctor who is available in his office during his office hours for children's care. However, it may also be noted that in response to an earlier question, a little over 94 per cent of the respondents indicated that their families would use a community health center or clinic.

Additional data were collected on the respondent's attitudes toward health services for their children. Table 45 shows that 77 per cent of those who had children 18 years of age and younger would like help in finding out how often children should see various health personnel, a little under 78 per cent would accept a specifically-trained nurse to care for those of their children's health problems that do not require a doctor's attention, and a little under 87 per cent would accept a specifically-trained nurse if the nurse would be able to discuss children's health with a physician and that the physician would see the children at scheduled times when children are well and at any time when they are sick.

In summary, a very high percentage of the families are receptive to various health services and facilities, attach more importance to the information on first aid and on how to obtain additional care and assistance than information in any other area, would prefer to have a doctor treat the whole family for any illness and a doctor who is available in his office during his office hours for children's care. The families would also like help in learning how often their children should see various health personnel and show general acceptance of nurse's care for children.

TABLE 45

RESPONDENTS ATTITUDES TOWARD ADDITIONAL HEALTH SERVICES FOR CHILDREN BY FAMILIES WHO HAD CHILDREN 18 YEARS OF AGE AND YOUNGER

Services	Those who responded affirmatively		
	Frequency	Per cent	N
Would you like help in finding out how often your children should be seen by a doctor, nurse, or dentist?	47	77.0	61
Would a specifically-trained nurse be acceptable to you to care for those of your children's health problems that do not require a doctor's attention	48	78.7	61
Would a specifically-trained nurse be acceptable to you if you know that she could discuss your children's health with a doctor at any time and that the doctor would see the children at scheduled times when well and at any time when sick?	53	86.9	61

TABLE 46

DISTRIBUTION OF WIVES WHO PRACTICE SELF-BREAST EXAMINATION FOR CANCER

Does Wife Practice Self-Breast Examination for Cancer?	Frequency	Per cent
Yes	11	14.1
No	67	85.9
Total	78	100.0

TABLE 47

DENTAL HEALTH-CARE PRACTICES BY FAMILIES

Dental Care Practices	Those who responded affirmatively		
	Frequency	Per cent	N
Does everyone in your family have his own toothbrush	78	86.7	90
Does your family use tooth-paste with fluoride in it?	64	71.1	90

TABLE 48

CHILDREN'S DENTAL HEALTH-CARE PRACTICES BY FAMILIES

(Those who had children 18 years of age or younger, N = 61)

Dental-Care Practices	Those who responded affirmatively		
	Frequency	Per cent	N
Do you check your children's mouths to see if they have cavities or bleeding gums?	43	70.5	61
Do you usually have candy in your home for your children?	35	57.5	61

TABLE 49

CHILDREN'S USE OF VITAMIN OR MINERAL SUPPLEMENTS BY FAMILIES

(Families who had children 18 years of age or younger, N = 61)

Do Children Take Vitamins?	Frequency	Per cent
Yes	39	63.9
No	19	31.1
No information	3	5.0
Total	61	100.0

TABLE 50

TYPES OF VITAMIN OR MINERAL SUPPLEMENTS USED BY CHILDREN BY FAMILIES

(Families who reported their children use supplements, N = 39)

Types of Vitamins or Mineral Supplements	Frequency	Per cent	N
Multivitamins from drug store	12	30.8	39
Cod liver oil	19	48.7	39
Vitamin C (ascorbic acid)	12	30.8	39
Prescription from physician	9	23.1	39

Health Practices

In this study data were collected also on the hygenic, preventive and other practices followed at home by these families. Earlier our emphasis has been on the utilization, availability of and accessibility to various medical services and facilities by these families. However, in this section we are concerned with the self-health practices followed by these people to preserve their health.

Table 46 shows that only 14 per cent of the wives practice self-breast examination for cancer. However, about one-half of those who practice self-breast examination have received instructions on how to do it.

Our findings presented above show that not only do the adults have numerous dental problems, but they also receive inadequate dental care. The data presented for children show similar results. However, here we are interested in the families' dental hygiene practices. Table 47 shows that in a little under 87 per cent of the families everyone has his own toothbrush, and 71 per cent of the respondents reported that they and their families use fluoridated toothpaste.

Regarding dental hygiene and preventive dental practices for children, 70.5 per cent of the families who had children 18 years of age and younger self-examine their children for cavities or bleeding gums, and a majority of the families reported that they usually have candy in their homes for children (Table 48).

Another area investigated in this context was the children's use of vitamin or mineral supplements. Table 49 shows that approximately 64 per cent of the families with children 18 years of age and younger reported that their children use vitamin or mineral supplements. Regarding types of supplements used by children, 30.8 per cent of the families reported that their children use multivitamins from a drug store, 48.7 per cent cod liver oil, and 30.8 per cent vitamin C. About one-fourth of the families reported that their children use physician-prescribed supplements. These data are reported in Table 50.

In summary, a few of the wives practice self-breast examination for cancer, in a little under 87 per cent of the families everyone has his own toothbrush, and a little over 70 per cent of the families who had children 18 years of age and younger self-examine their children for cavities or bleeding gums. Approximately 64 per cent of the families reported that their children use vitamin and mineral supplements, such as multivitamins, cod liver oil, vitamin C and other physician-prescribed supplements.

Summary

That the poor are afflicted with more illnesses than the rest of the population is substantiated by many studies. Over three-fourths of the families in this study indicated that they had various health and medical problems which needed immediate attention. In addition to medical problems (dental care, chronic medical conditions, skin conditions, sickness), it is worth noting that these families live in rather inadequate physical and sanitary conditions. Our findings show that inadequate heat, water supply, toilet facil-

ities and clothing are among the major problems of these families. Consequently, to alleviate their medical problems, one must also pay attention to their living conditions, as some of their medical problems may be a by-product of their impoverished physical surroundings.

The data on activity limiting symptoms and conditions show that the adults have a multiplicity of these symptoms and conditions. For 44.1 per cent of the husbands and 39.7 per cent of the wives it was difficult to "get around" due to various conditions. In addition to activity-limiting symptoms and conditions, 33.9 per cent of the husbands and 37.2 per cent of the wives have cardiovascular-renal and related illnesses, and about one-third of the husbands and approximately 17 per cent of the wives have current physical disabilities, and over three per cent of the husbands and 12.8 per cent of the wives have had partial or complete paralysis. However, one should be somewhat cautious about these findings. As the questions dealt with related symptoms and conditions and covered both present and past illnesses, there is likely to be some overlapping of responses to these questions. Even given this possible overlapping of responses, that is, one illness episode reported more than once, it remains apparent that the adults have many chronic illnesses and activity limiting symptoms and conditions. These illness episodes take on added significance when they interfere with adults daily activities and even with their employment. Consequently, adults might be unable to assume "gainful" and steady employment due to these illnesses, and are destined to stay in perpetual poverty conditions. Under these conditions they have to depend upon State,

Federal and other assistance both for their medical care and livelihood.

Not only do these families have numerous illnesses, but they also lack access to a physician. For instance, a little over one-third of the respondents indicate that they lack access to a physician, primarily due to transportation problems, non-availability of the physician, and monetary considerations. That these families have numerous unmet medical-care needs and lack access to a physician and hospital services is also evident from the other data collected during the interviews.

Despite the findings that the respondents generally express "positive" attitudes toward routine preventive care and recognize the importance and desirability of routine visits to a physician, preventive dental care and regular checkups, our findings show that these families have a rather low utilization of preventive-care and health-screening tests primarily due to transportation difficulties, financial considerations and non-availability of and inaccessibility to medical services and facilities. These factors prevent these families from obtaining services even when they place a "positive" value on such care. The removal of these barriers to health care may bring a closer correspondense between their attitudes (importance and desirability of preventive care) and their actions (actual utilization of such services).

Our findings on expected reaction to selected illness symptoms indicate that a high proportion of the respondents show the tendency to use professional assistance for such a wide range of symptoms and conditions. However, visit to a doctor's office

is the most often mentioned solution to these symptoms, and they seem to place least confidence in nurses for care in almost all cases. These findings seem to be inconsistent with the notion that American Indians are less sensitive to various conditions and generally have "negative" attitudes toward professional care.

The high cost of drugs, physican care, hospitalization and other costs often lead the poor to use folk-medicines and remedies for their health care. Our findings indicate that not only do many of the American Indian families have non-prescribed medicines, but also, a very high proportion of them use these medicines.

Our findings of dental care and services show that a very high percentage of the husbands and wives have cavities, toothaches, missing teeth, dentures, and generally bad teeth and 84-90 per cent of them see a dentist, if at all, for symptomatic rather than preventive care. Approximately two-thirds of the respondents do not see a dentist even when they consider such a visit desirable because they lack transportation or finances, fear getting hurt, or because the dentist is not available or has inconvenient office hours. These factors prevent these families from obtaining dental-care and services, even when they consider these services to be desirable or have immediate need for these services as is reflected in their dental problems. The removal of these barriers may bring a closer correspondence between their attitudes (desirability of preventive dental care), their needs (numerous dental problems) and their actions (actual use of these services).

Regarding anticipated use of additional services and facilities a very high proportion of the families are receptive to

health-screening programs, community health-center or clinic, and help in finding out how to obtain additional care. Regarding health information booklets, these families consider information on first aid and how to obtain additional care and assistance more important than information in any other area. It may be that they do not attach the same importance to the information in other areas and do not consider such information to be much use to them because the question of how to obtain medical care, assistance and first aid (in the absence of other services) is at the forefront of their minds. This is not surprising when one considers the numerous illness episodes, health-care needs and the general state of medical deprivation of these families. Given free choice, the respondents indicate preference for a physician who would treat the whole family for any illness and a physician who is available an his office for children's care. These families would also accept help in learning how often their children should see various health personnel and show a general acceptance of nurses' care for children.

The findings on family health practices show that a few of the wives practice self-breast examinations for cancer, in a little under 87 per cent of the families everyone has his own toothbrush, and a little over 70 per cent of the families who had children 18 years of age and younger self-examine their children for cavities and bleeding gums. Approximately 64 per cent of the families reported that their children use vitamin or mineral supplements, such as cod liver oil, vitamin C and other physician-prescribed supplements.

FOOTNOTES CHAPTER III

[1]See Appendix A, Table A-9.

[2]Of those who reported that they have current health and medical problems needing immediate help, 68.6 per cent of those would like to have a nurse come to discuss these problems (Appendix A, Table A-10).

[3]See also: U.S. Department of Health, Education and Welfare, "Annual Statistical Review, Hospital and Medical Services Fiscal Year 1968," Public Health Service Publication (Washington, D. C.: U.S. Government Printing Office) 1957; "The Indian Health Program of the Public Health Service," Public Health Service Publication No. 1026 (Washington D. C.: U.S. Government Printing Office) 1969.

[4]See particularly: U.S. Department of Health, Education and Welfare, "Limitation of Activity and Mobility Due to Chronic Conditions: United States July 1965-June 1966," Vital and Health Statistics, Series 10, No. 45, May 1968; "Disability Days, United States: July 1963-June 1964," National Center for Health Statistics, Series 10, No. 24, 1965. Also see other studies reviewed in Chapter II.

[5]See Appendix A, Table A-11.

[6]The various disability conditions reported for husbands are: arthritis, diabetes, unable to do hard work, shoulder and arm pains, damaged lungs, sleeping problem, polio, gun wounds, chronic asthma, ulcers, shock, broken bones, recuperation from heart attack, instability of knee and joints.

The various disability conditions reported for wives are: arthritis, tuberculosis, paralysis of arm, abdominal pains, back injury, improperly healed broken bones, painful knee and joints.

[7]Appendix A, Table A-12.

[8]Appendix A, Table A-13.

[9]The major ailments for which they did not receive medical attention are: heart pains, burns, accident, pneumonia, chest pains, stomach trouble, boil on ankle, allergies, asthma, and bronchitis.

The main reasons given were, lack of transportation, unable to leave sick bed, self-treatment.

The major ailments for which respondents spouses were not hospitalized are: internal pains, burns, accidents, pneumonia, bronchitis, asthma attacks, ear infection, rash and infection from allergies.

The major reasons given for not being hospitalized are: no transportation, did not want to go, no one to care for children, do not like doctor's medicine.

[10]The primary reasons for not receiving medical attention even when advised by a physician are: insufficient funds, no transportation, and prescription too costly.

The primary reasons for not being hospitalized even after a physician's recommendation are: did not believe the doctor, would rather not go into the hospital.

[11]The data on most recent visit to a physician for any reason show that 84.7 per cent of the husbands and 91.0 per cent of the wives had been to a physician within a year of the study (see Appendix A, Table A-19).

[12]It must be noted that the question did not differentiate the reasons given for husband and wife. The general distribution of reasons for not receiving checkups both for husband and wife are: feel don't need checkups (9), receive only symptomatic care (6), no transportation (6), lack of sufficient funds (3), cannot get an appointment (3), does not think of it (3), don't get around to it (3), has not taken time (2), no one to care for children (2), don't want checkups (2), do not bother (2), fear of doctors (1), don't like doctors (1), don't feel like it (1), don't know about it (1), and don't like to go (1).

[13]See for example, Earl L. Koos, The Health of Regionville (New York: Columbia University Press) 1954. See also: Daniel Rosenblatt and Edward A. Suchman, "The Underutilization of Medical-Care Services by Blue-Collarites," in Arthur B. Shostak, William Gombarg, (eds.), Blue-Collar World (Prentice Hall) 1964 pp. 341-349; J. S. Ross, "Social Class and Medical Care," Journal of Health and Human Behavior, 3 (Spring 1962); Saxon Graham, "Socio-economic Status, Illness and the Use of Medical Services," Milbank Memorial Fund Quarterly, 35 (January 1957) pp. 59-66; Irving K. Zola, "Illness Behavior of the Working Class: Implications and Recommendations," in Arthur B. Shostak and William Gombarg, Blue-Collar World (Prentice Hall) 1964, pp. 350-361; S. Lowry, et al., "Factors Associated with the Acceptance of Health Care Practices Among Rural Families," Rural Sociology, 23 (June 1958) pp. 198-202; E. A. Suchman, "Health Orientations and Medical Care," American Journal of Public Health, 56 (November 1965) pp. 97-105; E. A. Suchman, "Socio-medical Variations Among Ethnic Groups," American Journal of Sociology, 70 (1964) pp. 319-331; E. A. Suchman, "Social Patterns of Illness and Medical Care," Journal of Health and Human Behavior, 6 (1965) pp. 2-16; D. Phillips, "Self-Reliance and the Inclination to Adopt the Sick-Role," Social Forces, 43 (1965) pp. 555-563; G. MacGregor, "Social Determinants of Health Practices," American Journal of Public Health, 51 (November 1961) pp. 1709-1714; Lyle Saunders, Cultural Differences and Medical Care (New York: Russell Sage Foundation) 1954. For other studies see Chapter II.

[14]Edward Hassinger and Robert L. McNamara, "Stated Opinion and Actual Practice in Health Behavior in a Rural Area," Midwest Sociologist, 19(May 1957); Suzanne M. Selig and Bhopinder S. Bolaria, Attitudional and Social Correlates of Health and Sickness Behavior of

American Indians in the State of Maine, A publication of Maine's Regional Medical Program Research and Evaluation Service, August 1970.

[15]It is maintained that American Indians primarily due to their cultural orientation, do not generally accept "western medicine." See for example: John Adair, et al., "Patterns of Health and Disease Among the Navajos," Annals of the American Academy of Political and Social Science, 311 (May 1957); E. A. Gerken, "Development of a Health Education Program: Experience with the Navajo Reservation," Human Organization, 16, No. 4 (1958); Flora L. Bailey, "Suggested Techniques for Inducing Navajo Women to Accept Hospitalization During Childbirth and for Implementing Health Education," American Journal of Public Health, 38 (1948); Robert E. Ritzenthaler, "Chippewa Preoccupation with Health," Milwaukee Public Museum Collection Bulletin, 19, No. 4, (1953); Eric Stone, Medicine Among the American Indians, New York: Hafner Publishing Company, 1962; N. S. Gonzalez, "Health Behavior in Cross-Cultural Perspective: A Guatemalen Example," Human Organization, 25 (Summer 1966).

[16]U.S. Department of Health, Education and Welfare, "Cost and Acquisition of Prescribed and Non-prescribed Medicines: United States, July 1964-June 1965," National Center for Health Statistics, Series 10, Number 33, 1966; Gerald A. Syvrud, "Health Practices Among Older People in Three Communities," unpublished M. A. Thesis, Department of Sociology, Washington State University, 1962.

[17]Robert L. Eichhorn and Edward G. Ludwig, "Poverty and Health," in Poverty in Affluent Society, Hanna Meissner (ed.) (New York: Harper and Row) 1960, p. 179.

[18]See also, Appendix A, Table A-20.

[19]Gerald A. Syvrud, op. cit., also, N. Kessel and M. Shepherd, "The Health and Attitudes of People who Seldom consult a Doctor, Medical Care, 3 (1965), pp. 6-10.

[20]See review of studies presented in Chapter II.

[21]This category lends itself to various interpretations. For instance, it is not clear whether the respondents need "dentures" or that they have dentures and are having problems with them.

[22]The data on number of visits to a dentist during 1968 by those who have been to a dentist during this time period shows, that 78.3 per cent of the husbands and 82.3 per cent of the wives saw a dentist once. (See Appendix A, Table A-21).

[23]The data on distance from a dentist show that 11.1 per cent are less than 10 miles away from a dentist, 60 per cent 10-29 miles, 16.7 per cent 30-49 miles, 5.6 per cent 50-99 miles and 4.4 per cent 100 miles or more (Appendix A, Table A-22)

[24]When specifically asked: "Has a dentist ever refused to treat you or any member of your family because you did not have enough money?" 10 per cent responded affirmatively.

CHAPTER IV

CHILDREN'S HEALTH CARE

In the previous chapter data were presented on the health care of the adults. In the following pages findings are reported on children's health care. The various areas covered are: physician's services, routine-preventive care, immunization of children, health screening examinations, reactions to selected illness symptoms of children, and children's dental care. It may be noted here that most of these data are collected for children 18 years of age and younger. Therefore, questions were addressed only to those families who had children in this age group. There were 61 such families.

Physician's Care: Accessibility

In response to a general question reported above, approximately one-third of the respondents indicated that it is difficult for their families to see a physician. The primary reasons given for lack of accessibility were lack of transportation, non-availability of the physician and monetary considerations. In the present context the question was specifically asked for children. The data reported in Table 51 show that for about 38 per cent of the families, it is not "convenient" to take their children to a doctor. From among the various reasons the most frequently given (65.2 per cent) reason was "no car available," and "no one to take care of my other children." The other reasons have to do with the non-availability of the physician and respondents' inability to take their children to a physician during certain time periods. These data are presented in Table 52.

TABLE 51

CHILDREN'S GENERAL ACCESSIBILITY TO A PHYSICIAN BY FAMILIES

(Families who had children 18 years of age or younger, N = 61)

Is it convenient for you to take your children to a doctor?	Frequency	Per cent
Yes	38	62.3
No	23	37.7
Total	61	100.0

TABLE 52

DISTRIBUTION OF REASONS FOR LACK OF ACCESSIBILITY TO A PHYSICIAN

(Those reporting it is inconvenient to take children to a doctor, N =23)

Reasons	Frequency	Per cent	N
No car available	15	65.2	23
Have to rely upon friend or neighbor	8	34.8	23
No one to take care of my other children	3	13.0	23
Doctor too busy	1	4.3	23
Can't go during doctor's office hours	1	4.3	23
Doctors are not available at night	1	4.3	23
Have to rely upon sister for transportation	1	4.3	23
Can't afford to take children to doctor	1	4.3	23

However, when specifically asked if lack of money has ever prevented them from taking their children to a doctor or a dentist, about 28 per cent responded affirmatively (Table 53).

Seeing a physician may be only one step toward procuring health-care services. If one is unable to afford the cost of prescriptions, then a visit to a physician may be of little value. In this context, when the respondents were asked if the cost of prescriptions has ever prevented them from getting medicines of any kind for their children, approximately 58 per cent responded affirmatively.

These findings are consistent with the data reported above for adults. Monetary cost appears to be a major obstacle to these families in procuring health services. This is reflected both in their inability to take their children to a physician or a dentist and their difficulty in meeting prescription costs. To solve this problem it is necessary not only to remove financial barriers to health care, but also to deal with other problems which would prevent these families from taking advantage of medical services, if such services were available to them. For instance, even if all medical services were to be free, their inability to afford private transportation and a babysitter would be important factors in preventing these families from obtaining these services.

Routine-Preventive Health Care

It is recognized that it is a "good" medical practice to have routine checkups for children to detect health problems in their early stages. Early diagnosis is likely to increase the chances of early treatment and allievation of any problems.

TABLE 53

FINANCIAL CONSIDERATION IN CHILDREN'S HEALTH-CARE BY FAMILIES

(Families who had children 18 years of age or younger, N = 61)

Questions	Those responding affirmatively		
	Frequency	Per cent	N
Does lack of money ever keep you from taking your children to a doctor or dentist?	17	27.9	61
Does the cost of prescriptions ever keep you from getting medicine of any kind for your children?	34	55.7	61

TABLE 54

GENERAL PATTERN OF PREVENTIVE REGULAR CHECKUPS FOR CHILDREN BY FAMILIES

(Families who had children 18 years of age or younger, N = 61)

Health checkups	Number of Families	Per cent
Children receive regular health checkups	24	39.3
Children do not receive regular health checkups	37	60.7
Total	61	100.0

TABLE 55

DISTRIBUTION OF REASONS FOR CHILDREN NOT RECEIVING REGULAR CHECKUPS

(Families who reported that children do not receive checkups, N = 37)

Reason	Frequency	Per cent	N
Children don't need them	16	43.2	37
No transportation	19	51.4	37
Unable to pay the doctor	12	32.4	37
Cannot get an appointment	12	32.4	37
No one to take care of other children	12	32.4	37
Doctor's office hours are inconvenient	1	2.7	37
Haven't bothered to take them	1	2.7	37
It is not a family practice	1	2.7	37
Didn't even think to take them	1	2.7	37
Doctor said they really weren't necessary because of lack of time and help	1	2.7	37

TABLE 56

VISITS TO MEDICAL PERSONNEL BY CHILDREN OF ALL AGES DURING A TWELVE MONTH PERIOD (1968)

N = 291

Physician	Frequency	Per cent	N
General practitioner	86	29.6	291
Cardiologist	3	1.0	291
Bone specialist	7	2.4	291
Internist	1	0.3	291
Pediatrician	3	1.0	291
Surgeon	1	0.3	291
Other specialist	3	1.0	291
Psychiatrist	3	1.0	291
Psychologist	1	0.3	291
Optometrist	13	4.5	291
Public health nurse	16	5.5	291
Physical therapist	2	0.7	291
Podiatrist	2	0.7	291

In a national study, 36.3 per cent of those under 17 years of age, were reported to have had a routine physical examination within a year of the interview.[1] The data also show that "as family income rose, the proportion of children with routine physical examinations increased in each succeeding income level. Similarly, as educational status of the head of the family increased, the proportion of children with routine checkups rose remarkably."[2] For instance, 15.7 per cent of the children (under 17 years of age) from families with income under $2,000 and 53.9 per cent from families with income $10,000 and over had a routine physical examination within a year of the interview. Similarly, 14.1 per cent of the children where family head had less than 5 years of schooling and 56 per cent of those where family head had education of 13 years and more had a routine physical examination during the past year.[3] Other findings in general show a positive relationship between socio-economic status and children's health care.

Our data reported earlier for adults show that 28.8 per cent of the husbands and 48.7 per cent of the wives receive regular preventive checkups. When a similar question was asked about children, a little over 39 per cent (Table 54) of the families reported that their children receive regular health checkups. Table 55 shows that of families whose children do not receive regular checkups, 51.4 per cent indicate that they have no transportation, and 43.2 per cent feel that children don't need regular checkups. Other reasons relatively frequently mentioned are: unable to pay the doctor, cannot get an appointment, no one to take care of other children.

These findings show that in a majority of the families children do not receive regular health checkups due to lack of tansportation,

monetary considerations, cannot get an appointment with a physician and no one to take care of other children. However, many of the respondents also stated that the children "do not need" regular check-ups.

The data on the utilization of services of various health personnel during a 12 month period show that less than 30 per cent of the children visited a general practitioner. As Table 56 shows visits to specialists are rather infrequent during this time period, and 5.5 per cent of the children saw a Public Health Nurse and 4.5 per cent saw an optometrist.[4]

One of the most important areas of preventive care for children is immunization. It appears from our data that many of the children do not have these shots which are generally considered essential for children's health protection from a medical point of view. Table 57 shows that one-fifth of the children had none of these shots. Approximately 56 per cent had smallpox shots, 70.1 per cent polio shots, 62.5 per cent DPT, 47.7 per cent measles shots, and 35.6 per cent whooping cough shots. A very few of the children have had other immunizations.

Regarding other health-screening tests, our data reported in Table 58 show that many of the children have never had x-rays, hearing tests, vision tests, and physical examinations. For instance, 79.9 per cent, 56.5 per cent, 52.6 per cent and 70.8 per cent, have never had x-ray, hearing test, vision test and physical examination, respectively.[5] Of those who did have these tests, most were within a year of the study.

Of course, we recognize that the various immunizations and

TABLE 57

PROPORTION OF CHILDREN 18 YEARS OF AGE AND YOUNGER
WHO HAD VARIOUS IMMUNIZATIONS

Immunizations	Frequency	Per cent	N
Smallpox	148	56.1	264
Polio	185	70.1	264
DPT	165	62.5	264
Measles	126	47.7	264
DT	94	35.6	264
Whooping cough	24	9.1	264
Flu	23	8.7	264
TB test	2	0.8	264
Had no immunization	47	20.0	264

TABLE 58

LENGTH OF TIME SINCE MOST RECENT X-RAY, HEARING TEST, VISION TEST AND PHYSICAL EXAMINATION BY CHILDREN 18 YEARS OF AGE OR YOUNGER

N = 264

Length of Time	X-ray		Hearing test		Vision test		Physical Exam.	
	F	%	F	%	F	%	F	%
One year or less (during 1968 or 1969)	32	12.1	109	41.3	117	44.3	65	24.6
2 years ago (during 1967)	7	2.7	3	1.1	6	2.3	7	2.7
3 years ago (during 1966)	5	1.9	-	-	1	0.4	4	1.5
4 years ago (during 1965)	1	0.4	-	-	-	-	-	-
5 or more years ago	9	3.0	3	1.1	1	0.4	1	0.4
Have never had a test	211	79.9	149	56.5	139	52.6	187	70.8
Total	264	100.0	264	100.0	264	100.0	264	100.0

TABLE 59

EXPECTED SOLUTIONS TO SELECTED ILLNESS SYMPTOMS OF CHILDREN BY FAMILIES
(IN PER CENT)

Symptoms	Take to Hospital	Call a Doctor for a House Visit	Visit Doctor's Office	Consult Doctor on the Phone	See a Nurse	Home Remedies	Consult Relatives Friends, Neighbors	Wait Until It Goes Away	No Information	N
Headache	-	-	4.9	3.3	-	83.6	-	1.6	6.6	61
Cold	-	-	29.5	6.6	-	59.0	-	-	4.9	61
Cough	-	-	29.5	8.2	-	55.8	1.6	-	4.9	61
Urinary problems	6.6	-	70.5	9.8	-	6.6	1.6	-	4.9	61
Constipation	1.6	-	18.0	16.4	-	57.5	1.6	-	4.9	61
Rash and fever	6.6	1.6	59.1	11.5	-	13.1	1.6	1.6	4.9	61
Stomach ache	1.6	-	23.0	6.6	-	58.9	-	3.3	6.6	61
Very severe stomch ache	16.4	1.6	52.6	18.0	-	3.3	1.6	1.6	4.9	61
Running ear	1.6	-	69.0	11.5	1.6	9.8	-	1.6	4.9	61
Chills	3.3	-	31.2	11.5	-	47.5	1.6	-	4.9	61
High fever	8.2	6.6	57.4	13.1	-	8.2	1.6	-	4.9	61
Throwing up	3.3	1.6	41.1	13.1	3.3	29.5	1.6	1.6	4.9	61
Whooping cough	16.4	6.6	54.2	9.8	1.6	3.3	1.6	1.6	4.9	61
Mumps	9.8	6.6	44.4	9.8	3.3	18.0	1.6	1.6	4.9	61
Respiratory problems	16.4	1.6	64.1	6.6	1.6	1.6	1.6	1.6	4.9	61

tests reported above are, to a great extent, a function of the children's ages.[6] This would be particularly true of immunizations, since many of these shots are generally given before age two. In addition, the age at which a child receives other inoculations is determined by the schedule set up by a physician for that particular child. Despite these reservations, however, the percentage of children who have not had inoculations and health-screening tests remains high.

Reactions to Selected Illness Symptoms of Children

We were also interested to know the respondents' views of "proper" behavior in the presence of particular symptoms of children. Each respondent was presented with a list of 15 symptoms and conditions ranging from severe to most common ailments. The respondent was asked: "If you thought your child has or had these symptoms, what would you do first?" The response categories are: take to hospital, call a doctor for a house visit, visit doctor's office, consult doctor on the phone, see a nurse, use home remedies, consult relatives, friends and neighbors, and just wait until it goes away. It must be noted that the respondent was asked what he would do first, not what he should do.

Table 59 shows that the respondents are least likely to take the child to a hospital or take no action (wait until it goes away), call a doctor for a house visit, consult relatives, friends, or neighbors or see a nurse. A little under 84 per cent of respondents would use home remedies first in case of headac 55-59 per cent in case of cough, rash ard fever, stomach ache, and cold, 47.5 per cent for chills and 29.5 per cent for throwing up. In the case of other

symptoms and conditions most of the respondents indicate that they would use a physician's services right away, primarily in the form of a visit to a doctor's office.[7]

For further discussion, reaction to symptoms are classified into three categories, namely, "medical action," "non-medical action," and"no action." The first category includes: take to hospital, call a doctor for a house visit, visit a doctor's office, consult a doctor on the phone and see a nurse. The "non-medical" category includes: use home remedies and consult relatives, friends or neighbors and the "no action" category, just wait until it goes away. These data are presented in Table 60. It appears from these findings that there is a tendency to take "medical action" right away for more "severe" symptoms and a tendency to take "non-medical" and "no action" for "minor" symptoms. However, as noted above, the respondents seem to place least confidence in nurses for such care and are also least likely to use hospital services, but are most likely to use a physician's services.[8]

Children's Dental Care

The data reported above for adults showed that a high percentage of husbands and wives have numerous dental problems, approximately one-third of the adults have not been to a dentist for five years and a very high proportion of them see a dentist, if at all, for symptomatic rather than preventive care. In the following pages data are reported on children's dental care.

A little over three-fourths of the families who had children 18 years of age or younger reported that their child(ren) have dental

TABLE 60

EXPECTED SOLUTIONS TO SELECTED ILLNESS SYMPTOMS OF CHILDREN BY FAMILIES (IN PER CENT)

Symptoms	Medical Action[a]	Non-Medical Action[b]	No Action[c]	No Information	N
Headache	8.2	83.6	1.6	6.6	61
Cold	36.1	59.0	-	4.9	61
Cough	37.7	57.4	-	4.9	61
Urinary problems	86.9	8.2	-	4.9	61
Constipation	36.0	59.1	-	4.9	61
Rash and fever	78.8	14.7	1.6	4.9	61
Stomach ache	31.2	58.9	3.3	6.6	61
Very severe stomach ache	88.6	4.9	1.6	4.9	61
Running ear	83.7	9.8	1.6	4.9	61
Chills	46.0	49.1	-	4.9	61
High fever	85.3	9.8	-	4.9	61
Throwing up	62.4	31.1	1.6	4.9	61
Whooping cough	88.6	4.9	1.6	4.9	61
Mumps	73.9	19.6	1.6	4.9	61
Respiratory problems	90.3	3.2	1.6	4.9	61

[a]Medical action includes: take to hospital, call a doctor for a house visit, visit doctor's office, consult doctor on phone and see a nurse

[b]Non-Medical action includes: use of home remedies and consult relatives, friends, etc.

[c]No action includes: (wait until it goes away).

TABLE 61

SPECIFIC CHILDREN'S DENTAL PROBLEMS REPORTED BY FAMILIES WHOSE CHILD(REN) HAD DENTAL PROBLEMS

Children's Dental Problems	Frequency	Per cent	N
Cavities	34	81.0	42
Toothaches	22	52.4	42
Missing teeth	17	40.5	42
Generally bad teeth	10	23.8	42

TABLE 62

LENGTH OF TIME SINCE MOST RECENT VISIT TO THE DENTIST BY CHILDREN 18 YEARS OF AGE OR YOUNGER

Time Since Last Visit	Frequency	Per cent
1 year ago (during 1968)	142	60.9
2 years ago (during 1967)	6	2.6
5 or more years ago	1	0.4
Have never seen a dentist	84	36.1
Total	233[a]	100.0

[a]Thirty-one children no information.

TABLE 63

DISTRIBUTION OF REASONS FOR MOST RECENT VISIT TO A DENTIST BY CHILDREN

(Children who have been to a dentist, N = 149)

Reasons	Frequency	Per cent
Symptomatic (dental problems)	70	47.0
Preventive (routine dental care)	79	53.0
Total	149	100.0

TABLE 64

GENERAL PATTERN OF CHILDREN"S VISITS TO THE DENTIST BY FAMILIES

(Families who had children 18 years of age or younger, N = 61)

Visits	Frequency	Per cent
Only when absolutely necessary	34	55.7
Regularly (at least once a year)	25	41.0
Never	2	3.3
Total	61	100.0

problems.[9] Of these, 81 per cent reported that their children have cavities, 52.4 per cent toothaches, 40.5 per cent missing teeth, and 23.8 per cent generally bad teeth (Table 61)

The data on children's most recent visit to the dentist are presented in Table 62. Approximately 36 per cent of the children for whom information is available have never been to a dentist. On the other had about 61 per cent of the children saw a dentist during the year prior to the study year.[10] The data reported in Table 63 show that 47 per cent of those who have been to a dentist saw the dentist for symptomatic care.

Additional data show that a majority of families report that their children do not see a dentist regularly. Table 64 shows that about 56 per cent of the families report that their children see a dentist "only when absolutely necessary" and another 3.3 per cent of the families reported "never." However, 41 per cent of the families indicate that their child(ren) see a dentist regularly.

The data reported in Chapter I showed that a little under 90 per cent of the families indicated that the children should see a dentist at least once a year.[11] However, their "positive" attitudes toward children's dental care or their children's dental care needs are not reflected in the children's actual use of dental care. Our data reported earlier show that about 28 per cent of the families indicate that lack of money had prevented them from taking their children to a doctor or dentist, and another 58 per cent indicated that the cost of prescriptions had prevented them from getting medicine for their children.

Summary

In this chapter findings are reported on children's health care. The areas covered are: physician's services, routine-preventive care, immunization of children, children's health-screening examinations and children's dental care.

Approximately 38 per cent of the families with children 18 years of age and younger reported that it is not "convenient" for them to take their children to a physician, primarily due to transportation difficulties (no car available) and no one to take care of other children. The other reasons have to do with the non-availability of the physician and respondents' inability to take their children to a physician during certain hours. However, when specifically asked if lack of money has ever prevented them from taking their children to a doctor or a dentist, about 28 per cent of the families responded affirmatively. Also, when the respondents were asked if the cost of prescriptions has ever prevented them from getting medicines of any kind for their children, about 58 per cent responded affirmatively. Monetary cost appears to be a major obstacle to these families in procuring physician's care for their children. However, to solve this problem it is necessary not only to remove financial barriers to health care, but also to deal with other problems which would prevent these families from taking advantage of medical services, if such services were available to them. For instance if all medical services were to be free, their inability to afford transportation and a babysitter would be important barriers to these families in obtaining services.

Our findings on routine preventive care show that in a majority of the families children do not receive regular health check-ups due to lack of transportation, lack of money, inability to get an appointment with a physician and no one to take care of other children. However, many of the respondents also state that the children "do not need" regular checkups. The data on children's utilization of services show that less than 30 per cent of the children visited a general practitioner and visits to specialists were rather infrequent during this time period.

One of the most important areas of preventive care for children is immunization. Our findings show that many of the children have not received specific immunizations and one-fifth of the children did not receive any of the inoculations. Regarding various health-screening tests, our data show that a majority of the children have never had an x-ray, hearing test, vision test and physical examination. Of course, we recognize that various immunizations and tests are, to some extent, a function of the children's ages. This would be particularly true of immunizations, since many of these shots are generally given before age two. In addition, the age at which a child receives inoculations is determined by the schedule set up by a physician for that particular child. Despite these considerations, however, the percentage of children who have had inoculations and health-screening examinations is still very low.

The data on reactions to specific illness symptoms of children show that there is a tendency to take "medical action" right away for more "severe" symptoms and a tendency to take "non-medical" or "no action" for "minor" symptoms. However, respondents seem to place least

confidence in nurses for such care and are also least likely to use hospital services, but are most likely to use a physician's services.

Regarding children's dental care, three-fourths of the families reported that their child(ren) have dental problems, about 36 per cent of the children have never been to a dentist and for 47 per cent of the children the most recent visit to a dentist was for symptomatic rather than preventive care. Regarding the general pattern of children's visits to a dentist, about 56 per cent of the families report that their children see a dentist "only when absolutely necessary." It is apparent that the children do not receive adequate dental care, despite the need for such care as is reflected in children's dental problems.

FOOTNOTES CHAPTER IV

[1]U.S. Department of Health, Education and Welfare, "Physician Visits: Interval of Visits and Children's Routine Check-ups," National Center for Health Statistics, Series 10, Number 19, 1965, p. 10.

[2]Ibid., p. 12.

[3]Ibid., p. 11, (Figure 11).

[4]The data on hospitalized illness episodes show that only 11.7 per cent of the children were hospitalized during a twelve month period (See Appendix A, Table A-23).

Even in terms of children's symptoms, only 2 families reported that their child(ren) turn blue when playing hard, 4 families reported that their child(ren) squat often while playing, and 3 families reported that their child(ren) have convlusions or fits.

[5]When the respondents were asked: "Have your children been examined by a doctor or nurse at school?" 31.1 per cent of the families reported that their child(ren) had been examined by a doctor or nurse at school

Also 67.2 per cent, 55.7 per cent, 37.7 per cent, of the families reported that their child(ren) participate in school program, school milk program, and school breakfast program, respectively. It is also very likely that some families did not have school-age children.

[6]For children's age distribution see Appendix A, Table A-3.

[7]Regarding the symptom of running ear, in response to a related question: "Do you think permanent harm can result when a child has earache or has draining ears?" 62.3 per cent of the respondents with children 18 years of age and younger responded affirmatively.

[8]Also see, Robert A. Bendiksen and Bhopinder S. Bolaria, Social Correlates of Expected Solutions to Selected Illness Symptoms of Children, A publication of Maine's Regional Medical Program Research and Evaluation Service, July 1970.

[9]This may or may not be the most accurate way to determine the extent of children's dental problems. The respondents were asked: "Do any of your children presently have any of the following dental problems?" The response categories were: Toothaches, cavities, missing teeth, generally bad teeth, and no dental problems presently.

[10]The data on frequency of visits to the dentist during this time period show that 54.2 per cent of the children saw a dentist once, 26.1 per cent twice, and 19.7 per cent three or more times.

[11]See Table 10.

[12]See Table 53.

CHAPTER V

SUMMARY AND CONCLUSIONS

The findings presented here are based upon a study of two Indian communities-Pleasant Point and Peter Dana Point. Data were collected by household interviews and the questions of health care pertaining to all members of the family were directed to an adult member who was expected to know the most about family use of health services. In this manner, though interviews were conducted with 90 respondents, a varying degree of information was collected for 499 individuals. The use of household interviews by means of which questions of health information pertaining to all members of the household are addressed to one of its members, is most commonly used in studies of this type.

Before presenting the implications of our analysis, it may be instructive to recapitulate briefly our findings. Our data show that over three-fourths of the families have various health and medical problems which need immediate attention. These problems range from chronic medical conditions and dental care to inadequate physical and sanitary conditions, such as, inadequate heat, water supply and toilet facilities. The findings show that the adults have a multiplicity of activity-limiting symptoms and conditions, cardiovascular-renal and related illnesses, physical disabilities and incidence of partial or complete paralysis. As these questions dealt with related symptoms and conditions and covered both the present and past illness episodes, there is likely to be some overlapping of responses to these questions. Even given this possible overlapping of responses, that is, one illness episode reported more than once, still it remains

apparent that the adults have many chronic illnesses and activity-limiting symptoms and conditions. Not only do these families have numerous illnesses, but they also lack access to medical services and facilities. Many of the American Indian families use non-prescribed medicines for their health-care, and have a rather low level of utilization of various health services and facilities.

Our findings on dental care and services are consistent with the findings of the utilization of other health-care services. A very high percentage of the husbands and wives have dental problems and 84-90 per cent of them see a dentist, if at all, for symptomatic rather than preventive care. It is also apparent that the children do not receive adequate dental care, despite the need for such care as is reflected in their dental problems.

What are the reasons for lack of access by these families to various medical services and facilities? Our findings show that a little over one-third of the families indicate that they lack access to a physician, because of transportation problems, non-availability of the physician and lack of money. The data also show that these families have a rather low utilization of preventive-care and health-screening tests, for similar reasons, transportation difficulties, financial considerations and non-availability of and inaccessibility to medical services and facilities. Similar reasons are given by the respondents for lack of access to other health services and facilities.

It can be argued that the lack of financial resources is the major reason that these families do not obtain health care. The other reasons reported by these families can be seen to be the by-product of financial problems. For example, they cannot afford to

pay for transportation, babysitters for other children, or for prescriptions. The cost of medical services may also be a factor in these families' use of non-prescribed medicines and remedies for their health care. There is consistent support in our findings for the conclusion that the major barrier to receiving health-care for these families is lack of financial resources.

Socio-economic status is related to health and illness behavior patterns both directly and indirectly. For example, there is substantial evidence which supports the conclusion that lower socio-economic status is associated with lower utilization level of preventive and other medical services under the present fee-for-service system of health care. Indirectly, socio-economic status is an important variable in accounting for varying response to illness, as it is associated with values, knowledge and attitudes toward health and disease.

The association between health attitudes and utilization of health services needs further comment here. One of the factors which might influence an individual's decision to seek care is his attitude toward personal health and health care. The lower classes, it is maintained, are more skeptical of the value of routine preventive care and early consultation and treatment, and these factor subsequently interfere with their receipt of medical care in time.

In the case of the American Indians, their cultural values, customs and their view of "western medicine" are often emphasized as factors which prevent this group from accepting modern medicine. In this context, our findings show that the respondents generally express "positive" attitudes toward routine-preventive care and

and recognize the importance and desirability of routine visits to a physician, and dentist and preventive health checkups. However, our data on the actual use of routine-preventive care and other services show that these families have a rather low utilization of these services, primarily due to transportation difficulties, financial considerations and non-availability of services. These factor. prevent these families from obtaining these services even when they place a "positive" value on such care. The removal of these barriers may bring a closer correspondence between their attitudes (importance and desirability of preventive care), their needs (illness and dental problems) and their actions (actual utilization of such services.)

Important as it is, the sheer removal of the financial barrier in itself may not fully solve the problem for these families. One must consider other factors which would prevent these families from using medical services, even if such services were available to them. For instance, if all medical services were to be free, transportation problems, lack of money to pay someone to take care of children at home, and even the cost of prescriptions would be important factors in preventing these families from utilizing these services. Furthermore for American Indians there is the additional problem of prejudice and discrimination.

These families also face many other problems. Our findings show that the adults in our sample have a multiplicity of activity-limiting conditions, disabilities and cardiovascular-renal and related illnesses. These illness episodes take on added significance when they interfere with adults' daily activities and even with their employment. Consequently, because of these conditions, adults might

be unable to assume "gainful" and steady employment and are destined to stay in perpetual poverty conditions. This in turn affects their ability to use health services. They are caught in a vicious cycle: they are poor because they are sick and they are sick because they are poor. Under these circumstances they have to depend upon State, Federal and other assistance both for their medical care and livelihood.

Poverty affects health in other ways. For instance, our findings on families' health and medical problems show that these families live in rather inadequate physical and sanitary conditions and have additional problems of inadequate heat, water supply and toilet facilities. Consequently, to alleviate their medical problems, one must also pay attention to their living conditions, as some of their medical and health problems may be a by-product of their impoverished physical and sanitary conditions.

American Indian families, therefore, face a multitude of health and health-related problems. These probems are further accentuated by the present health care system. The combination of high cost for medical care, inequitable distribution of health personnel and facilities, and a loosely integrated system of health care, had perpetuated ill health, particularly among the poor. It is well recognized that the fee-for-service system of health care delivery is not conducive to preventive health care. Even in many ritical areas, as immunization and inoculation of children, these amilies are unable to procure these services. One cannot help but agree with the National Advisory Commission of Health Manpower, that "unless we improve the system through which health care is provided,

care would continue to become less satisfactory even though there are massive increases in costs and in number of health personnel."

The differential access to medical services and facilities due to economic and other reasons is further increased when combined with inequitable distribution of health personnel and facilities. The problem is more severe for the rural poor, as the health facilities, costly as they may be, are largely unavailable to them. To see our findings in a broader context, it might be useful to present briefly the general economic conditions and the distribution of selected health resources in Washington County where these two Indian communities are located. Approximately 29 per cent of the families in Washington County have income below $3,000.[1] This figure is the highest in the state, and of all the counties only Cumberland has less than 20 per cent of its families with incomes under $3,000. The American Indians in Washington County have an even lower socio-economic status. For instance, our own data based upon the families in our sample show that approximately three-fourths of the families have annual income of $3,000 or less, about one-third of the husbands are unemployed, most of those employed are in low status jobs, and a majority of both husbands and wives have a low level of education.[2] The data on the distribution of selected medical services in Washington County show that the ratio of active M.D.'s to population is 1/2264, and active D.O.'s to population is 1/15,850. However, in terms of area, there is one active M.D. per 182 square miles and one D.O. per 1,279 square miles.[3] Given the supply and distribution of physicians and the large area to be covered, in more isolated areas the inhabitants are likely to receive even less adequate care.

A very high proportion of the families appear to be receptive to proposed services and facilities, such as, health-screening programs and community health centers or clinics. Regarding health information booklets, these families consider information on first aid and how to obtain additional care and assistance more important than information in any other area. It may be that they do not attach the same importance to the information in other areas and do not consider such information of much utility because the question of how to obtain medical care and assistance and first aid information, is at the forefront of their minds. This is not surprising when one considers numerous illness episodes, health-care needs and the general state of medical deprivation of these families.

FOOTNOTES CHAPTER V

[1] Poverty in Maine, Maine Office of Economic Opportunity, prepared by ARCO, Inc., 1968.

[2] See also, The Maine Handbook-A Statistical Abstract, Maine Department of Economic Development (August, 1968); U.S. Department of Agriculture, Rural American Indians in Poverty, Economic Research Service Economic Report No. 167 (Washington D.C.: U.S. Government Printing Office) 1969.

[3] See Appendix B, Tables B-1 to B-6, for these and other data on the distribution of selected medical resources in Maine.

APPENDIX A

SUPPLEMENTARY TABLES

TABLE A-1

MARTIAL STATUS OF THE RESPONDENTS

N = 90

Marital Status	Frequency	Per cent
Single	11	12.2
Married	47	52.2
Divorced	6	6.7
Separated	13	14.5
Deserted	1	1.1
Widowed	12	13.3
Total	90	100.0

TABLE A-2

AGE DISTRIBUTION OF RESPONDENTS AND SPOUSE

Age	Husband		Wife	
	F	%	F	%
24 and under	4	6.9	9	11.5
25-29	3	5.2	12	15.4
30-34	12	20.8	13	16.7
35-39	8	13.8	8	10.3
40-44	6	10.3	7	8.9
45-49	6	10.3	9	11.5
50-54	4	6.9	6	7.7
55-59	6	10.3	3	3.8
60-65	4	6.9	5	6.4
66-69	2	3.4	2	2.6
70-75	1	1.8	2	2.6
76 and older	2	3.4	2	2.6
Total	58[a]	100.0	78	100.0

[a]One - information.

TABLE A-3

AGE DISTRIBUTION OF CHILDREN OF ALL AGES

N = 291

Age of Children	Frequency	Per cent
Less than one year	12	4.2
One year	11	3.8
Two years	15	5.1
Three years	15	5.1
Four years	18	6.2
Five-six years	33	11.3
Seven-eight years	42	14.4
Nine-ten years	33	11.3
11-12 years	29	10.0
13-14 years	20	6.9
15-16 years	20	6.9
17-18 years	16	5.4
19 years or more	27	9.4
Total	291	100.0

TABLE A-4

EMPLOYMENT STATUS OF RESPONDENTS AND SPOUSE

Employment Status	Husband		Wife	
	F	%	F	%
Employed	39	68.4	11	14.3
Not employed	18	31.6	38	49.4
Housewives	--	----	28	36.3
Total	57[a]	100.0	77[b]	100.0

[a]Two no information. [b]One no information.

TABLE A-5

OCCUPATIONAL STATUS OF EMPLOYED RESPONDENTS AND SPOUSE

Job Category	Husband		Wife	
	F	%	F	%
Operative-semi-skilled	16	41.0	2	18.2
Managers and officials (except farm)	6	15.4	4	36.4
Laborers (except farm and mine)	9	23.1	0	0.0
Service workers--except household	4	10.3	2	18.2
Craftsmen-skilled	2	5.1	2	18.2
Professional and technical	2	5.1	1	9.0
Total	39	100.0	11	100.0

TABLE A-6

EDUCATION LEVEL OF RESPONDENTS AND SPOUSE

Educational Level	Husband		Wife	
	F	%	F	%
Grades 1-6	4	7.3	15	19.7
Grades 7-8	17	30.9	35	46.1
1-3 years of high school	14	25.5	17	22.4
4 years of high school	13	23.6	6	7.9
1-3 years of college	5	9.1	2	2.6
4 years of college	2	3.6	1	1.3
Total	55[a]	100.0	76[b]	100.0

[a]Four no information available. [b]Two no information available.

TABLE A-7

ANNUAL FAMILY INCOME

Income	Frequency	Per cent
$1,500 or less	35	48.6
$1,501-$3,000	19	26.4
$3,001-$4,500	6	8.3
$4,501-$6,000	6	8.3
$6,001-$8,000	4	5.6
$8,001 and over	2	2.8
Total	72[a]	100.0

[a]For 10 families no information available and eight others reported "don't know."

TABLE A-8

SOURCES OF MEDICAL CARE EXPENSES

Sources	Frequency	Per cent	N
Indian agent	55	61.1	90
State help	40	44.4	90
Medicare	26	27.7	90
Cash from household funds	25	28.8	90
Savings	16	17.7	90
Insurance	10	11.1	90
Borrow from relatives	6	6.7	90
Borrow from bank	3	3.3	90
Federal help	3	3.3	90
Borrow from friends	6	6.7	90
Other medical plans	2	2.2	90
Town help	1	1.1	90

TABLE A-9

DISTRIBUTION OF FAMILIES WITH CURRENT HEALTH OR MEDICAL PROBLEMS

N = 90

Do you have family health or medical problems which need help now?	Frequency	Per cent
Yes	70	77.8
No	20	22.2
Total	90	100.0

TABLE A-10

RESPONDENTS' ATTITUDES TOWARD TALKING TO A NURSE ABOUT CURRENT FAMILY HEALTH OR MEDICAL PROBLEMS

(Families reporting health or medical problems , N = 70)

Would you like a nurse to come to talk to you about these problems?	Frequency	Per cent
Yes	48	68.6
No	22	31.4
Total	70	100.0

TABLE A-11

CARDIOVASCULAR-RENAL AND RELATED ILLNESSES BY HUSBAND AND WIFE

Cardiovascular-Renal and Related Diseases	Husband		Wife	
	F	%	F	%
Has at least one of these diseases	20	33.9	29	37.2
None	36	61.0	45	57.7
No information	3	5.1	4	5.1
Total	59	100.0	78	100.0

TABLE A-12

DISTANCE FROM FAMILY DOCTOR

(Those who had a family doctor, N = 86)

Distance from family doctor	Frequency	Per cent
Less than 5 miles	4	4.7
5-9 miles	48	55.8
10-14 miles	4	4.7
15 miles and over	30	34.8
Total	86	100.0

TABLE A-13

DISTANCE FROM THE NEAREST DOCTOR

N = 90

Distance from nearest doctor	Frequency	Per cent
Less than 5 miles	8	8.8
5-9 miles	60	66.7
10-14 miles	5	5.6
15 miles and over	17	18.9
Total	90	100.0

TABLE A-14

VISITS TO SPECIFIC MEDICAL PERSONNEL DURING A TWELVE MONTH PERIOD (1968) BY WIFE

N = 78

Physician	Frequency	Per cent
General practitioner	59	75.6
Bone specialist	2	2.6
Gynecologist	4	5.1
Surgeon	2	2.6
Other specialist	2	2.6
Optometrist	16	20.5
Public health nurse	6	7.7
Physical therapist	2	2.6
Occupational therapist	1	1.3
Inhalation therapist	1	1.3
Dietitian	1	1.3
Podiatrist	1	1.3

TABLE A-15

VISITS TO SPECIFIC MEDICAL PERSONNEL DURING A TWELVE MONTH PERIOD (1968) BY HUSBAND

N = 59

Physician	Frequency	Per cent
General practitioner	37	62.7
Cardiologist	3	5.1
Cancer specialist	1	1.7
Neurologist	1	1.7
Bone specialist	7	11.9
Dermatologist	1	1.7
Internist	1	1.7
Surgeon	2	3.4
Other specialist	6	10.2
Optometrist	10	16.9
Public health nurse	2	3.4
Physical therapist	1	1.7
Podiatrist	1	1.7

TABLE A-16

REASONS FOR HUSBAND'S HOSPITALIZATION DURING A TWELVE MONTH PERIOD (1968)

(Those who were hospitalized, N = 19)

Reason	Frequency	Per cent
Accident	1	5.3
Diabetes	1	5.3
Pneumonia	2	10.5
Physical examination	1	5.3
Extraction of teeth	1	5.3
Removal of gall stones	1	5.3
Removal of gall bladder	1	5.3
Hemorrhage	1	5.3
Rupture	1	5.3
Back injury	2	10.5
Ulcers	2	10.5
Knee trouble	1	5.3
Dizzy spells	1	5.3
Infection	2	10.5
Broken back	1	5.3
Total	19	100.0

TABLE A-17
REASON FOR WIFE'S HOSPITALIZATION DURING A TWELVE MONTH PERIOD
(Those who were hospitalized, N = 24)

Reason	Frequency	Per cent
Accident	1	4.2
Diabetes	1	4.2
Pneumonia	2	8.3
Hysterectomy	2	8.3
Bad cold or flu	1	4.2
Removal of gall bladder	2	8.3
Nervous condition	1	4.2
Operation (not specified)	2	8.3
Asthma	1	4.2
Childbirth	6	24.8
Miscarriage	1	4.2
Pregnancy	1	4.2
Damaged blood vessel	1	4.2
Operation to remove growth	1	4.2
Broken bone	1	4.2
Total	24	100 0

TABLE A-18
DISTANCE TO A HOSPITAL

Distance	Frequency	Per cent
Less than 5 miles	2	2.2
5-9 miles	44	48.9
10-14 miles	0	0.0
15-19 miles	3	3.3
20-24 miles	14	15.6
25 miles and more	27	30.0
Total	90	100.0

TABLE A-19

LENGTH OF TIME SINCE MOST RECENT VISIT TO A PHYSICIAN FOR ANY REASON BY HUSBAND AND WIFE

Length of Time	Husband		Wife	
	F	%	F	%
Within the last six months	33	55.9	58	74.3
Within the last year	17	28.8	13	16.7
Within the last five years	5	8.5	5	6.4
Within the last ten years	-	--	1	1.3
Over ten years ago	4	6.8	1	1.3
Total	59	100.0	78	100.0

TABLE A-20

POSSESSION OF HOME REMEDIES AND PATENT MEDICINES

Home Remedies and Patent Medicines	Don't have		Have		N
	F	%	F	%	
Salves, ointment	42	46.7	48	53.3	90
Tonics	80	88.9	10	11.1	90
Purgatives (laxatives)	38	42.2	52	57.8	90
Liniments	49	54.4	41	45.6	90
Antiseptics (iodine etc.)	22	24.4	68	75.6	90
Vitamins	49	54.4	41	45.6	90
Stomach settlers	33	36.7	57	63.3	90
Cold remedies	35	38.9	55	61.1	90
Cough remedies	34	37.8	56	62.2	90
Piles, hemorrhoid remedies	77	85.6	13	14.4	90
Eye drops	57	63.3	33	36.7	90

TABLE A-21

NUMBER OF VISITS TO THE DENTIST IN 1968 BY HUSBAND AND WIFE

(Those who saw a dentist in 1968)

Frequency of Visits in 1968	Husband		Wife	
	F	%	F	%
Once	18	78.3	14	82.3
Twice	3	13.0	-	-
Three or more times	2	8.7	3	17.7
Total	23	100.0	17	100.0

TABLE A-22

DISTANCE FROM A DENTIST

Distance from Dentist	Frequency	Per cent
Less than 10 miles	10	11.1
10-29 miles	54	60.0
30-49 miles	15	16.7
50-99 miles	5	5.6
100 miles and over	4	4.4
Do not know	2	2.2
Total	90	100.0

TABLE A-23

REASONS FOR HOSPITALIZATION OF CHILDREN OF ALL AGES DURING A TWELVE MONTHS PERIOD (1968)

(Those who were hospitalized, N = 34)

Reason	Frequency	Per cent
Accident	4	11.8
Pneumonia	4	11.8
Bad cold or flu	4	11.8
Kidney trouble	1	2.9
Operation (not specified)	2	5.9
Dislocated hip	1	2.9
Broken bone	2	5.9
Diarrhea	6	17.8
Nervous condition	1	2.9
Rheumatic fever	1	2.9
Physical examination	2	5.9
Appendectomy	2	5.9
Bronchitis	1	2.9
Chest congestion	1	2.9
Operation to remove growth	1	2.9
Allergies	1	2.9
Total	34	100.0

TABLE A-24

NUMBER OF CHILDREN'S VISITS TO THE DENTIST DURING A TWELVE MONTHS PERIOD (1968)

(Those who had seen a dentist during this time, N = 142)

Number of Times Child Saw a Dentist in 1968	Frequency	Per cent
Once	77	54.2
Twice	37	26.1
Three times or more	28	19.7
Total	142	100.0

TABLE A-25

SMOKING STATUS OF HUSBAND AND WIFE

Do you Smoke Cigarettes?	Husband		Wife	
	F	%	F	%
Yes	30	51.7	44	56.4
No	28	48.3	34	43.6
Total	58	100.0	78	100.0

TABLE A-26

EXPOSURE TO IRRITATING CHEMICAL OR AIR POLLUTANTS BY HUSBAND AND WIFE

Are you Exposed to Irritating Chemicals or Air Pollutants	Husband		Wife	
	F	%	F	%
Yes	13	22.4	15	19.2
No	45	77.6	63	80.8
Total	58[a]	100.0	78[b]	100.0

[a]Frequencies and percentages are based on 58 respondents. Thirty-one had no husbands and one gave no information

[b]Frequencies and percentages based on 78 respondents. Twelve had no wives.

TABLE A-27

CHRONIC COUGH BY HUSBAND AND WIFE

Do You Have Chronic Cough?	Wife		Husband	
	F	%	F	%
Yes	10	12.8	14	23.7
No	68	87.2	44	74.6
No information	--	---	1	1.7
Total	78	100.0	59	100.0

TABLE A-28

SOURCE OF DRINKING WATER

Source	Frequency	Per cent
Own well water	4	4.4
Community water	74	82.3
Neighbor's well	2	2.2
Spring water	1	1.1
Lake water	8	8.9
Other	1	1.1
Total	90	100.0

APPENDIX B

DISTRIBUTION OF SELECTED MEDICAL

RESOURCES IN MAINE

TABLE B-1

DISTRIBUTION OF ACTIVE PHYSICIANS (M.D.'s) IN THE STATE OF MAINE

County	Population[a]	Land Area (square miles)[b]	Number of M.D.'s[c]	Active M.D./ Population Ratio[d]	Active M.D./ Square Mile Ratio[e]
Androscoggin	89,500	478	89 (9)	1/1006	1/5
Aroostook	102,200	6805	53 (8)	1/1928	1/128
Cumberland	188,300	881	216 (35)	1/872	1/4
Franklin	20,700	1715	15 (1)	1/1380	1/114
Hancock	32,700	1542	37 (4)	1/884	1/42
Kennebec	90,900	865	116 (15)	1/784	1/7
Knox	29,400	362	30 (10)	1/980	1/12
Lincoln	19,200	457	11 (5)	1/1745	1/41
Oxford	43,500	2085	23 (10)	1/1891	1/91
Penobscot	126,500	3408	100 (11)	1/1265	1/34
Piscataquis	17,000	3948	10 (6)	1/1700	1/395
Sagadahoc	23,000	257	16 (4)	1/1438	1/16
Somerset	41,700	3922	22 (7)	1/1895	1/178
Waldo	22,900	734	4 (3)	1/5725	1/183
Washington	31,700	2553	14 (2)	1/2264	1/182
York	103,800	1000	57 (10)	1/1821	1/17
State	983,000	31,012	813 (140)	1/1209	1/38

[a]Source: The Main Handbook--A Statistical Abstract, Maine Department of Economic Development, August, 1968, p. 19. (Department of Health and Welfare Estimated for 1966.)

[b]Source: The Maine Handbook--A Statistical Abstract, op. cit., p. 116. Figures include land area only. Maine also has 2203 square miles of water area.

[c]Source: Maine Medical Association Official Roster, Supplement to the Journal of the Maine Medical Association May 1, 1969. Figures indicate "Active" M.D.'s; figures in parentheses indicate "honorary" "senior" "affiliate" "junior" or "service" M.D.'s

[d]Based on "Active" M.D.'s only.

[e]Based on "Active" M.D.'s and land area only.

TABLE B-2

DISTRIBUTION OF ACTIVE PHYSICIANS (D.O.'s) IN THE STATE OF MAINE

County	Population[a]	Land Area (square miles)[b]	Number of D.O.'s[c]	Active D.O./ Population Ratio[d]	Active D.O./ Square Mile Ratio[e]
Androscoggin	89,500	478	5 (2)	1/17,900	1/96
Aroostook	102,200	6805	5 (0)	1/20,400	1/1,361
Cumberland	188,300	881	66 (4)	1/2,853	1/13
Franklin	20,700	1715	3 (0)	1/6,900	1/572
Hancock	32,700	1542	6 (1)	1/5,450	1/257
Kennebec	90,900	865	8 (1)	1/11,363	1/108
Knox	29,400	362	6 (2)	1/4,900	1/60
Lincoln	19,200	457	4 (1)	1/4,800	1/114
Oxford	43,500	2085	7 (0)	1/6,214	1/298
Penobscot	126,500	3408	14 (0)	1/9036	1/243
Piscataquis	17,000	3948	3 (0)	1/5667	1/1,316
Sagadhoc	23,000	257	2 (0)	1/11,500	1/128
Somerset	41,700	3922	7 (2)	1/5,957	1/560
Waldo	22,900	734	3 (0)	1/7,633	1/245
Washington	31,700	2553	2 (1)	1/15,850	1/1,276
York	103,800	1000	21 (2)	1/4,943	1/48
State	983,000	31,012	162 (16)	1/6068	1/191

[a]Source: The Maine Handbook--A Statistical Abstract, Maine Department of Economic Development, August, 1968. p. 19. (Department of Health and Welfare Extimates for 1966).

[b]Source: The Maine Handbook--A Statistical Abstract, op. cit., p. 116. Figures include land area only. Main also have 2203 square miles of water area.

[c]Source: Maine Osteopathic Association, Directory, (Mimeo) August, 1968. Figures indicate "Active" D.P.'s figures in parentheses indicate "retired" D.O.'s.

[d]Based on "Active" D.O.'s only.

[e]Based on "Active" D.O.'s and land area only.

TABLE B-3

DISTRIBUTION OF PHYSICIANS (M.D.'s, D.O.'s) IN THE STATE OF MAINE

County	Population[a]	Total MD's (active+other)[b]	Total DO's (active+other)[c]	All MD's + DO's (active+other)	All doctors/ Population ratio	Total Active Physicians	All Active doctors population ratio
Androscoggin	89,500	98	7	105	1/852	94	1/952
Aroostook	102,200	61	5	66	1/1548	58	1/1762
Cumberland	188,300	251	70	321	1/587	282	1/668
Franklin	20,700	16	3	19	1/1089	18	1/1150
Hancock	32,700	41	7	48	1/681	43	1/760
Kennebec	90,900	131	9	140	1/649	124	1/773
Knox	29,400	40	8	48	1/613	36	1/817
Lincoln	19,200	16	5	21	1/914	15	1/1280
Oxford	43,500	33	7	40	1/1088	30	1/1450
Penobscot	126,500	111	14	125	1/1012	114	1/1110
Piscataquis	17,000	16	3	19	1/895	13	1/1308
Sagadahoc	23,000	20	2	22	1/1045	18	1/1278
Somerset	41,700	29	9	38	1/1097	29	1/1438
Waldo	22,900	7	3	10	1/2290	7	1/3271
Washington	31,700	16	3	19	1/1668	16	1/1981
York	103,800	67	23	90	1/1153	78	1/1331
State	983,000	953	178	1131	1/869	975	1/1008

[a] Source: The Maine Handbook--A Statistical Abstract, Maine Department of Economic Development, August, 1968. p. 19. (Department of Health and Welfare Estimates for 1966.)

[b] Source: Maine Medical Association Official Roster, Supplement to the Journal of Maine Medical Association, May 1, 1969.

[c] Source: Maine Osteopathic Association Directory, (Mimeo), August, 1968.

TABLE B-4

DISTRIBUTION OF PHYSICIANS (M.D.'S, D.O.'S) IN THE STATE OF MAINE

County	Land Area (square miles)[a]	All Active MD's[b]	All Active DO's[c]	Total Active Physicians	All active doctors/ square mile ratio	Total Physicians (MD's, DO's; Active + other)	All Physicians/ square mile ratio
Androscoggin	478	89	5	94	1/5	105	1/5
Aroostook	6805	53	5	58	1/117	66	1/103
Cumberland	881	216	66	282	1/3	321	1/3
Franklin	1715	15	3	18	1/95	19	1/90
Hancock	1542	37	6	43	1/36	48	1/32
Kennebec	865	116	8	124	1/7	140	1/6
Knox	362	30	6	36	1/10	48	1/8
Lincoln	457	11	4	15	1/31	21	1/22
Oxford	2085	23	7	30	1/70	40	1/52
Penobscot	3408	100	14	114	1/30	125	1/27
Piscataquis	3948	10	3	13	1/304	19	1/208
Sagadahoc	257	16	2	18	1/14	22	1/12
Somerset	3922	22	7	29	1/135	38	1/103
Waldo	734	4	3	7	1/105	10	1/73
Washington	2553	14	2	16	1/160	19	1/134
York	1000	57	21	78	1/13	90	1/11
State	31,012	813	162	975	1/32	1131	1/27

[a] Source: The Maine Handbook--A Statistical Abstract, Maine Department of Economic Development, August, 1968. p. 116. Figures include land area only. Maine also has 2203 square miles of water area.

[b] Source: Maine Medical Association Official Roster, supplement to the Journal of the Maine Medical Association May 1, 1969.

[c] Source: Maine Ostepathic Association, Directory, (Mimeo) August, 1968.

176

TABLE B-5

HOSPITAL DISTRIBUTION IN THE STATE OF MAINE

County	Population[a]	Land Area (square miles)[b]	Number of Hospitals[c]	Hospital Size[d]	Bed/Population Ratio	Special Hospitals and Size[e]
Androscoggin	89,500	478	2	499	1/179	
Aroostook	102,200	6805	9	472	1/217	Loring A.F.B. Hospital
Cumberland	188,300	881	9	1102	1/171	Brunswick N.A.S. Hosp. (31) Pineland (819)
Franklin	20,700	1715	1	50	1/414	
Hancock	32,700	1542	4	170	1/192	
Kennebec	90,900	865	5	554	1/164	Augusta State (1721) V.A.Togus (909)
Knox	29,400	362	2	120	1/245	
Lincoln	19,200	457	2	78	1/246	
Oxford	43,500	2085	2	138	1/315	
Penobscot	126,500	3408	8	715	1/177	Bangor State (1200)
Piscataquis	17,000	3948	3	78	1/218	
Sagadahoc	23,000	257	1	96	1/240	
Somerset	41,700	3922	5	172	1/242	Central Maine Sanatorium (88)
Waldo	22,900	734	1	60	1/382	
Washington	31,700	2553	3	140	1/226	
York	103,800	1000	6	352	1/295	
State	983,000	31,012	63	4796	1/205	7 Total beds 4798

[a] Source: The Maine Handbook--A Statistical Abstract, Maine Department of Economic Development, Augusta, 1968, p. 19, (Department of Health and Welfare Estimates for 1966).

[b] Source: The Maine Handbook--A Statistical Abstract, op. cit., p. 116. Figures include land area only. Maine also has 2203 square miles of water area.

[c] Source: Directory of Maine Hospitals and Schools of Nursing, Maine Hospital Association, October 1968.

[d] Source: See Footnote c.

TABLE B-6

NURSING HOME DISTRIBUTION IN THE STATE OF MAINE

County	Population 65 and over[a]	Number of Nursing homes[b]	Number of Beds in Nursing Home[c]	Beds in Nursing Home/ Population 65 and over ratio
Androscoggin	9,834	17	736	1/13
Aroostook	7,596	11	187	1/41
Cumberland	20,910	29	699	1/30
Franklin	2,274	5	75	1/30
Hancock	4,260	7	165	1/26
Kennebec	10,694	23	583	1/18
Knox	4,233	5	85	1/50
Lincoln	2,592	7	117	1/22
Oxford	5,196	9	245	1/21
Penobscot	12,375	16	435	1/29
Piscataquis	2,262	6	88	1/26
Sagadahoc	2,750	6	98	1/28
Somerset	4,527	9	208	1/22
Waldo	2,666	5	120	1/22
Washington	4,289	8	168	1/26
York	11,604	18	450	1/26
State	108,062	181	4459	1/24

[a]Source: The Maine Handbook--A Statistical Abstract, op. cit., p. 19.

[b]Source: Maine Licensed Hospitals and Related Institutions Directory, Maine Department of Health and Welfare, Division of Hospital Services, July, 1966.

[c]Source: See Footnote b.

APPENDIX C

QUESTIONNAIRE

HEALTH STUDY

Summer 1969

The purpose of this study is to determine some of the family-health needs. Questions concerning the availability and use of health services in general, the availability and use of doctors, hospitals, and clinics, and general health questions will be asked about you and your family.

This information will be useful in planning future medical care programs. Our interest is in assisting your community in developing methods to assure you and your family the best medical care possible.

Your help is necessary for the success of this study but is entirely voluntary, all information will be kept strictly confidential.

We greatly appreciate your cooperation.

Diocese of Portland
Division of Indian Services

Bhopinder S. Bolaria, Ph. D.
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Orono, Maine

The contents of this questionnaire are in no way the responsibility of the U. S. Public Health Service.

BACKGROUND INFORMATION

We would like some information about yourself and your family.

1. How long have you lived in this house?_____ (years)

   How long have you lived in this town?_____ (years)

2. What is your present marital status? (Check only ONE response)
   1___single
   2___married
   3___divorced
   4___separated
   5___deserted
   6___widowed

3. How many children do you have?
   _____Number of children _____no children

4. How many people are presently living in your household, including yourself? _____
   Please list all the people who live in this household. Let's begin with yourself,--husband, and eldest child first,--and others (Under "person" indicate the relationship: eg. son, daughter, Aunt, Uncle Grandparent, etc.)

Person	Sex of Each Person	Age of each Person in the Household (Months for babies)	Present state of health of each person -- (1)excellent (2) good (3)fair (4)poor
Respondent			
Spouse			
(Eldest Child)			
1			
2			
3			
4			
5			
6			

SECTION II

HEALTH AND MEDICAL SERVICES

Now we would like to know about your health and the medical services available to you and your family.

1. Do you have a family doctor? ___yes ___no

2. What do you do first when you need medical attention? (Check only one response)
   1___call a doctor
   2___go to a hospital
   3___go to a clinic
   4___go to the drugstore
   5___call a nurse
   6___consult a friend or neighbor
   7___other: Specify_____

3. When do you or any family member go to a doctor? (Check only one response)
   1___only when you think you are sick
   2___at least once a year
   3___at least twice a year
   4___more than three times a year
   5___other: specify_____

4. How often do you think one should see a doctor? (Check only one response)
   1___at least once a year for a physical examination
   2___only when one is sick
   3___at least twice a year
   4___more than three times a year
   5___other: specify_____

5. Do you see a doctor only when you are sick or hurt? ___yes ___no

6. Would a nurse be able to help you or anyone in your family?
   ___yes ___no

7. Is it difficult for your family to see a doctor? ___yes ___no
   If yes, Why? (Check as many as apply)
   1___unable to pay the doctor
   2___no transportation
   3___doctor's office hours are inconvenient
   4___cannot get an appointment
   5___afraid the doctor might find something seriously wrong with you
   6___no difficulty in seeing a doctor
   7___other: specify_____

8. How far do you have to travel to see your family doctor? (Check only one response)
   1___less than 1 mile
   2___1 to 4 miles
   3___5 to 9 miles
   4___10 to 15 miles
   5___15 miles and over
   6___no family doctor

9. How far do you have to travel to see any doctor? (Check only one response)
   1___less than 1 mile
   2___1 to 4 miles
   3___5 to 9 miles
   4___10 to 14 miles
   5___15 miles and over

10. If you or any family member are sick, when do you contact a physician? (Check as many as apply)
    1___when you have pain
    2___when you have a fever
    3___when you have money to pay him
    4___when you first feel poorly (health)
    5___when someone tells you that you should
    6___other: specify_____

11. When did you or your spouse last see a doctor for a complete Physical examination? (Check one for each person. Check "does not apply" if information is unavailable)

	Respondent	Spouse
1. Within the last six months		
2. Within the last year		
3. Within the last five years		
4. Within the last ten years		
5. Over ten years ago		
6. Never		
7. Does not apply		

12. What was the reason for the last complete physical examination? (Check "Does not apply" if information is unavailable)

Respondent		Spouse
_____	Symptom of illness	_____
_____	Preventive (routine checkup)	_____
_____	Does not apply	_____

13. When did you or your spouse last see a doctor for any reason? (Check one for each person. Check "does not apply" if information is unavailable.)

	Respondent	Spouse
1. Within the last six months		
2. Within the last year		
3. Within the last five years		
4. Within the last ten years		
5. Over ten years ago		
6. Never		
7. Does not apply		

14. Were you or any member of your family hospitalized during 1968? (List only those who were hospitalized during 1968.)

Family Position	Why Hospitalized	How Long
Respondent		
Spouse		
Eldest Child		
1		
2		
3		
4		
5		
6		

14a Is there a particular medical person or clinic you or any family member go to when you are sick or for advice about health?

Person	Yes	No	Medical person or clinic (category only)
Respondent			
Spouse			
Eldest Child			
1			
2			
3			
4			
5			
6			

b If you were free to choose, what kind of health care would you like to have for your family? (Check only one.)

1___To have one doctor treat the whole family for any illness.

2___To have several doctors available for use, for examply one for children and another one for adults.

3___To have several specialists available to see each person depending upon the nature of the illness.

14c. If you were free to choose, which one would you choose? (Check only one)

1___The doctor who comes to your home to examine your child.

2___The clinic where you have to take your child and where the equipment necessary for examination is available.

3___The doctor whom you know you can find in his office during office hours.

d. During 1968 did you or any member of your family visit any of the following? (Check if applies)

Person I.D.	General Practitioner	Specialist see below	Psychiatrist	Psychologist	Eye doctor (optometrist)	Public Health Nurse	Chiropractor	Physical therapist	Occupational therapist	Inhalation therapist	Dietitian	Podiatrist
Respondent												
Spouse												
Eldest child												
1												
2												
3												
4												
5												
6												

Specialist:
1. Cardiologist (heart)
2. Cancer specialist
3. Neurologist (brain)
4. Bone specialist
5. Gynecologist
6. Dermatologist
7. Internist
8. Obstetrician
9. Pediatrician
10. Surgeon
11. Other specialist

15. How far do you have to travel to a hospital? (Check only one response.)

1___less than 5 miles	4___15 to 19 miles
2___5 to 9 miles	5___20 to 24 miles
3___10 to 14 miles	6___25 miles and over

16. Have you or your spouse ever had any ailment (in the past or presently) for which either of you did not receive a doctor's attention? ___yes ___no
If yes, what ailment?_____
If yes, why didn't you or your spouse receive a doctor's attention?_____
_____

17. Have you or your spouse ever had an ailment (in the past or presently) for which either of you should have been hospitalized but were not?
___yes ___no
If yes, what ailment? _____
If yes, why weren't you or your spouse hospitalized? (specify)
_____

18. Has a doctor ever told you or your spouse that either of you needed medical attention which you did not receive? ___yes ___no
If yes, why didn't you receive it? (Check as many as apply for each person. Check "does not apply" if information is unavailable.)

	Respondent	Spouse
1. Did not believe the doctor		
2. Had insufficient funds		
3. Had no transportation		
4. Doctor's office hours inconvenient		
5. Couldn't get an appointment		
6. Felt better eventually		
7. Prescription too costly		
8. Did not believe medicine would do any good		
9. Other (specify)		
10. Does not apply		

19. Has a doctor ever told you or your spouse that either of you needed hospitalization which you did not receive? ___yes ___no
If yes, why weren't you hospitalized? (Check as many as apply for each person. Check "does not apply" if information is unavailable.)

	Respondent	Spouse
1. Did not believe the doctor		
2. Could not miss work		
3. Had insufficient funds		
4. Would rather not go into hospital		
5. Nobody to take care of children		
6. Felt better eventually		
7. Other: Specify		
8. Does not apply		

20. Do you feel that regular health checkups are important?
___yes ___no

21. Do you and your spouse have regular health checkups, even when you are well?
_____yes _____no
If no, why not? (specify)_____
_____

22. Would you like help in finding out how you and your family can get additional health services?
____yes ____no

23. Would you and your family use a community health center or health clinic if it were available?
____yes ____no

24. Would you and your family participate in a program designed to find out if you are sick or have some illness you are unaware of (at no cost to you)?
____yes ____no

25. In your opinion how adequate is the medical care available to you and your family? (Check only one response.)
1____does not exist (services and facilities are not available)
2____available but not adequate
3____exists in community but not available to my family. Why not?
Specify_____
4____available for minor illness but not for complicated or emergency situations
5____available only as emergency care
6____available and adequate

26. Do you think medical services are available in this community in case of: (Answer each response "yes" or "no.")

a stroke?	____yes ____no
cancer?	____yes ____no
heart disease?	____yes ____no
a heart attack?	____yes ____no

27. Have you or your spouse ever had the following? (Check as many as apply for each person.)

Respondent		Spouse
	A stroke	
	Cancer	
	Heart disease	
	A heart attack	

28. Have you or your spouse ever had partial or complete paralysis of one side of the body?
Respondent: ____yes ____no
Spouse: ____yes ____no
(If "no," skip to Question 30)
If yes, did you or your spouse have any of the following?
(Be sure to answer each response "yes" or "no.")

	Respondent		Spouse	
	Yes	No	Yes	No
1. Unconscious at any time				
2. Numbness or tingling				
3. Difficulty in talking				
4. Dimming or blurring of vision				
5. Seeing double				
6. Difficulty in understanding words				
7. Confusion about where you were or about what was happening				
8. Headache				
9. Feeling of being off-balance				
10. Unsteadiness of walk				
11. Dizziness or nausea				
12. Difficulty in swallowing				
13. Sudden deafness				
14. Noise in the ears				

29. Are there any specific family health or medical problems which you need help with now? (Check only those which the family needs help with now.)

1____sick child
2____family planning
3____diet and food preparation
4____alcoholism
5____water supply
6____toilet facilities
7____sick wife
8____sick husband
9____dental care
10____chronic medical conditions
11____clothing
12____heat
13____skin conditions
14____others: (specify)_____
15____no health problems which need help

30. Would you like a nurse to come to talk to you about these problems?
____yes ____no

31. Would you use any of the following information booklets if they were available to you? (Check only those which you would use.)

1____First Aid
2____baby care
3____minor illnesses in children
4____when to call a doctor
5____how to obtain medical care and assistance with health problems

32. Do you or your spouse presently have any of the following dental problems? (Check as many as apply)

You	Spouse
1____a toothache	1_____
2____cavities	2_____
3____missing teeth	3_____
4____generally bad teeth	4_____
5____dentures	5_____

33. Does everyone in your family have his own toothbrush?
____yes ____no

34. Do you use toothpaste with floride in it? ____yes ____no

35. What is your source of drinking water? (Check only one response.)
1____your own well water
2____community water
3____neighbor's well
4____spring water
5____other: (specify)_____

36. Has any dentist ever refused to treat you or any member of your family because you did not have enough money? _____yes _____no

37. How many times did you or your spouse see a dentist in 1968? (Check appropriate column for each person. Check "does not apply" if information is unavailable.)

Respondent		Spouse
	Once	
	Twice	
	Three times or more	
	Never saw a dentist in 1968	

38. If you did not see a dentist in 1968, when was the last time you saw a dentist? (Be specific)
_____ Respondent _____Spouse

39. How often do you or your spouse generally see a dentist? (Check appropriate column for each person. Check "does not apply" if information is unavailable.)

Respondent		Spouse
	Never	
	Only when absolutely necessary	
	Once a year	
	More than once a year	

Does not apply_____

40. What was the reason for you or your spouse seeing the dentist the last time? (Check appropriate column for each person. Check "does not apply" if information is unavailable.)

Respondent		Spouse
	Symptom of dental problem	
	Preventive (routine dental checkup)	

Does not apply_____

41. What are the reasons why you don't go to the dentist when you think you should go? (Check as many as apply.)
1____cannot pay the dentist
2____fear of getting hurt
3____no transportation
4____dentist's office hours are inconvenient
5____cannot get an appointment
6____always go when I think I should
7____other: (specify)_____

42. How often do you think a person should see a dentist? (Check only one response.)
1____only when absolutely necessary
2____once a year
3____twice a year
4____three or more times a year

43. How far do you have to travel to see a dentist? (Check only one response.)
1____less than 10 miles
2____10 to 29 miles
3____30 to 49 miles
4____50 to 99 miles
5____100 miles or over

44. Have you or your spouse ever had an electrocardiogram (ECG or EKG)?

Respondent		Spouse
_____	yes	_____
_____	no	_____

If yes, when? (Check only one response. Check "Does not apply" if information is unavailable)

Respondent		Spouse
_____	Within 6 months	_____
_____	Within 1 year	_____
_____	Within 5 years	_____
_____	Never	_____
	Does not apply_____	

45. Have you (wife) ever had a cancer "pap" smear? ____yes ____no
If yes, when? (Check only one response)
1____at time of last pregancy
2____within 6 months
3____within 1 year
4____within 5 years
5____over 5 years ago
6____no cancer "pap" test

46. Have you (wife) ever had surgery for breast cancer? (Check "does not apply" if information is unavailable.)
____yes ____no ____does not apply
If yes, was the cancer found by you (wife)_____ or by doctor_____?

47. Do you (wife) now practice self-breast examination for cancer? (check "does not apply" if information is unavailable.)
____yes ____no ____does not apply
If yes, where you instructed on how to do this?____yes ____no

48. Please answer the following (Check as many as apply for each person): (Answer ALL responses YES or NO.)

Respondent			Spouse	
Yes	No		Yes	No
		Do you smoke cigarettes?		
		Do you have a chronic cough?		
		Are you exposed to irritating chemicals or air pollutants?		
		Have you had a chest x-ray within the last five years?		

49. How long ago did you or your spouse have a chest x-ray? (Check "does not apply" if information is unavailable.)

Respondent		Spouse
_____	Approximate date of last x-ray	_____
_____	No chest x-ray	_____
_____	Does not apply	_____

50. Have you or your spouse ever had any of the following illnesses? (Check all that apply for each person) (Check "Does not apply" if information is unavailable.)

Respondent		Spouse
_____	Diabetes	_____
_____	High blood pressure	_____
_____	Kidney disease	_____
_____	Rheumatic fever	_____
_____	Circulation (blood) problems	_____
	Does not apply_____	

51. Do any of the following symptoms make it difficult for you or your spouse to get around?

_____yes _____no

If yes, which symptoms? (Check as many as apply.)

	Respondent	Spouse
1. Chest pain, shoulder or arm pains		
2. Palpitations (rapid heart beating)		
3. Severe shortness of breath		
4. Severe indigestion		
5. Swelling of feet or ankles		
6. Blueness of lips or fingernails		
7. Painful or swolled joints		

52. Has anyone in your family ever had any of the following illnesses? (Check only those who have had the illness.)

a. (wife's family)

	Wife	Brother	Sister	Mother	Father	Grandparents
Heart attack						
High blood pressure						
Kidney disease						
Rheumatic fever						
Circulation (blood) problems						
Diabetes						

b. (husband's family)

	Husband	Brother	Sister	Mother	Father	Grandparents
Heart attack						
High blood pressure						
Kidney disease						
Rheumatic fever						
Circulation (blood) Problems						
Diabetes						

c. Your own

Children	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex
Heart attack										
High blood pressure										
Kidney disease										
Rheumatic Fever										
Circulation (blood) problems										
Diabetes										

53. Is there anyone listed above who has not recently had medical attention for any of the illnesses listed above? ____yes ___no

If yes, who? (specify person)_____

If yes, what are the reasons for not receiving medical attention? (Check as many as apply.)

1___condition is not worse
2___druestore suggested some medicine
3___difficult to see a doctor
4___afraid to go to a doctor
5___no way to pay a doctor
6___no transportation
7___other: (specify)_____

54. If you thought any adult member of your family had the following, what would you do?

	Take to hospital	Call a doctor for a house visit	Make appointment at the doctor's office (visit to doctor's office)	Consult doctor on the phone	See a Nurse	Use home remedies (Maternal care)	Consult relatives friends and neighbors	Just wait until it goes away
1. Any sore that does not heal								
2. Vision problems								
3. Blackouts--fainting								
4. Chest pain								
5. Excessive bleeding								
6. Discharge								
7. Frequent fever								
8. Headache								
9. Lower back pain								
10. Shortness of breath								
11. Swelling of feet or ankles								
12. Persistent indigestion								
13. Blueness of lips and fingernails								
14. Palpitations								
15. A lump or thickening in the breast or elsewhere								
16. Any change in a wart or mole								
17. Difficulty in swallowing								
18. Persistent hoarseness or cough								
19. Any change in normal bowel habits								

55. We are interested in what people do themselves to take care of their health and what kinds of medicines they have in their homes. Do you have some medicines in your home such as the following:
(Explain: Only medicines which have not been prescribed by a doctor)
(Remember to ask after each yes: Do you use this remedy if needed; if yes check "have, use")

1. Salves or ointments	____don't have	____have	____have, use
2. Tonics	____don't have	____have	____have, use
3. Purgatives (laxatives)	____don't have	____have	____have, use
4. Liniments	____don't have	____have	____have, use
5. Antiseptics (iodine, etc.)	____don't have	____have	____have, use
6. Vitamins	____don't have	____have	____have, use
7. Stomach settlers	____don't have	____have	____have, use
8. Cold remedies	____don't have	____have	____have, use
9. Cough remedies	____don't have	____have	____have, use
10. Piles or hemorrhoid remedies	____don't have	____have	____have, use
11. Eye drops	____don't have	____have	____have, use
12. Asprin	____don't have	____have	____have, use

56. Do you or your spouse have a disability now? ____yes ____no
If no, go to question 57
If yes, who? ____respondent ____spouse ____both
If yes, what is the disability? respondent_____
spouse_____
If yes, please answer the following questions: (Answer each question yes or no.)

	Respondent		Spouse	
	yes	no	yes	no
1. Are you presently being treated for it?				
2. Have you ever been hospitalized or been to a hospital clinic for it?				
3. Do you need medical help now?				
4. Do you know who to contact in order to get help for rehabilitation?				
5. Do you feel that with some training you could return to work or fairly normal activity?				
6. Are you now receiving financial support from a state agency?				
7. Are you now receiving city or town financial aid?				
8. Are you now receiving social security benefits?				
9. If you are not receiving any of the above forms of financial support, have you applied for them?				

57. How do you meet the expenses for your family's medical care? (Check as many as apply.)

1___savings
2___borrow from bank
3___borrow from loan company
4___borrow from friends
5___borrow from relatives
6___cash from household funds
7___medicare
8___other medical plans
9___state help
10___town help
11___federal help
12___insurance
13___Indian agent
14___do not know

58. Do you have medical insurance? ___yes ___no

If yes, what type?

1___Blue Cross (hospital)
2___Blue Shield (doctors)
3___State Aid (AFDC, AD, etc.)
4___Commercial (private) insurance
5___other: (specify) _____
6___no insurance

SECTION III

CHILDREN'S HEALTH SECTION

Answer these questions only if there are children 18 years of age or younger in the family.

1. Where do you take your children when they are sick or hurt?

1___to a doctor's office
2___to a hospital
3___to a nurse
4___to a friend or relative
5___other: (specify) _____

2. Is it convenient for you to take your children to a doctor?

___Yes ___No

If no, why not? (Check as many as apply)

1___no car available
2___have to rely on neighbor or friend
3___doctor too busy
4___can't go during doctor's hours
5___no one to take care of my other children
6___other: (specify) _____

3. Do your children regularly get "health checkups" even when they are well? ___yes ___no

If no, why not? (Check all that apply)

1___don't need them
2___unable to pay the doctor
3___doctor's office hours inconvenient
4___cannot get an appointment
5___no transportation
6___no one to take care of the other children
7___other: (specify) _____

4. Have your children ever been examined by a doctor or nurse at school?
____yes ____no
If yes, when?

Child	When (Time)
1	
2	
3	
4	
5	
6	

5. What immunizations (shots) have your children had? (Check all that apply for each child; If any child has not had any of the shots, please record the name and present age and leave all of the spaces blank)
(Start with the eldest child)

First Name	Present Age	Small-pox	Polio	DPT Diptheria Pertussis Tetanus	Measles	DT Diptheria Tetanus	Specify others
1							
2							
3							
4							
5							
6							

6. How many times did your children see a dentist in 1968? (Check the appropriate column for each child and list all children.)

Child's Name	Number of Times in 1968				If not in 1968, when was the last time they saw a dentist
	Once	Twice	Three times or more	Never saw a Dentist in 1968	
1					
2					
3					
4					
5					
6					

7. How often do your children generally see a dentist? (Check only one response)
1____never
2____only when absolutely necessary
3____once a year
4____more than once a year

8. How often do you think your children should see a dentist? (Check only one response)
1____never
2____only when absolutely necessary
3____once a year
4____twice a year
5____3 or more times a year

9. What was the general reason for your children seeing a dentist the last time? (Check only one response)
   1____symptom of dental problem
   2____preventive (routine dental checkup)

10. Do any of your children presently have any of the following dental problems? (Check as many as apply)
    1____toothaches
    2____cavities
    3____generally bad teeth
    4____missing teeth

11. Do you look in your children's mouths to see if they have cavities or bleeding gums? ____yes ____no

12. Do you usually have candy in your home for your children?
    ____yes ____no

13. Do any of your children: (Answer each response yes or no)
    a. ever turn blue when playing hard? ____yes ____no
    b. squat often while playing? ____yes ____no
    c. ever have convulsions or fits? ____yes ____no

14. Do you think that any permanent harm can result when a child has an earache or has draining ears? ____yes ____no

15. Does any member of your family take vitamins or mineral supplements?
    ____yes ____no ____no children
    If yes, specify:

	Children (Under 18)	Adults (18 and over)
1. Prescription from physician		
2. Multivitamins from drugstore		
3. Cod liver oil		
4. Vitamins with floride		
5. Vitamin C (ascorbic acid)		
6. Other _____		

16. Do any of your school children participate in the following: (Check all that apply)
    1____school lunch program
    2____school milk program
    3____school breakfast
    4____does not participate in any program

16. a. How long ago did your children have any of the following: (Specify for each child in order (eg. eldest first)

(Eldest Child)	X-ray Date	No X-ray	Hearing test date	No Hearing	Vision Test Date	No Vision Test	Physical Exam Date	No Physical Exam
1								
2								
3								
4								
5								
6								

158

17. If you thought your child has (or had) the following, what would you do first?

	Take to hospital	Call a doctor for a house visit	Make appointment at the doctor's office (visit to doctor's office)	Consult doctor on the phone	See a Nurse	Use home remedies (maternal care)	Consult relatives friends, and neighbors	Just wait until it goes away
1. Headache								
2. Cold								
3. Cough (croup)								
4. Urinary problems								
5. Constipation								
6. Rash and fever								
7. Stomach ache								
8. Very severe stomach ache								
9. Running ear								
10. Chills								
11. High fever								
12. Throwing up								
13. Whooping cough								
14. Mumps								
15. Respiratory problems								

18. Would you like help in finding out how often your children should be seen by a doctor, nurse or dentist? ____yes ____no

19. Would a specially-trained nurse be acceptable to you to care for your children's health problems that do not require a doctor's attention?
____yes ____no
Would a specially-trained nurse be acceptable if you knew that she could discuss your children's health with a doctor at anytime and that the doctor would see the children at scheduled times when well and at any time when sick?
____yes ____no

20. Does lack of money ever keep you from taking your children to see a doctor or dentist?
____yes ____no

21. Does the cost of prescriptions ever keep you from getting medicine of any kind?
____yes ____no

22. Are you or your spouse presently employed?

Respondent		Spouse
_____	Yes	_____
_____	No	_____
	Does not apply_____	(Check if information is unavailable)

If yes, what is this occupation?
Respondent (Specify)_____
Spouse (Specify)_____
Does not apply_____(Check if information is unavailable)

23. What was the last grade of school completed?
Respondent _____
Spouse_____

24. Was any child born during 1968? (Check only one response)
____yes ____no ____no children

25. What is your approximate yearly income? (Check only one response)

1____$1500 or less	4____$4501 to 6000
2____$1501 to 3000	5____$6001 to 8000
3____$3001 to 4500	6____$8001 and over

(Interviewer--If unable to obtain yearly income, ask for hourly, weekly, bi-monthly or monthly salary and compute for yearly income)

NAME (Husband)_____

NAME (Wife)_____

ADDRESS_____

TOWN_____

DATE OF INTERVIEW:_____

NAME OF INTERVIEWER:_____

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